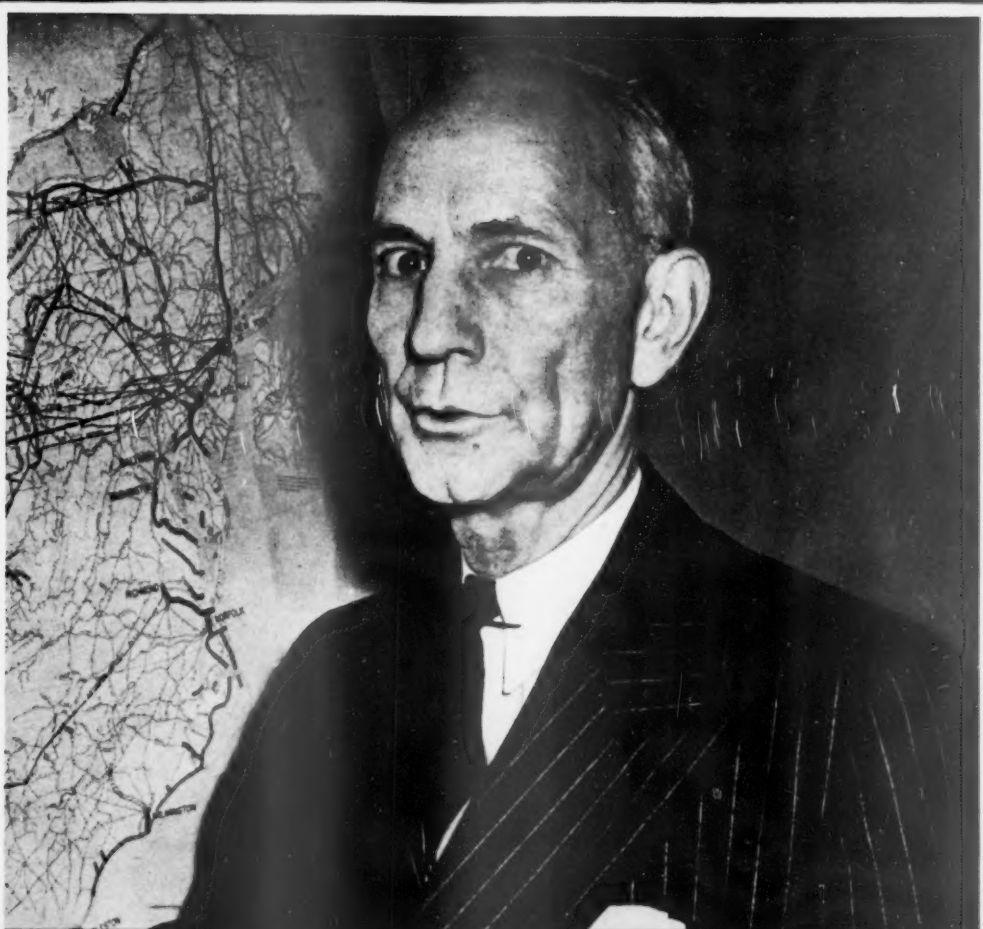


BUSINESS WEEK

WEEK
AGO

YEAR
AGO

START
OF WAR
1939



Brig. Gen. Charles D. Young: his job, to push the nation's railroad facilities to the breaking point (page 7).

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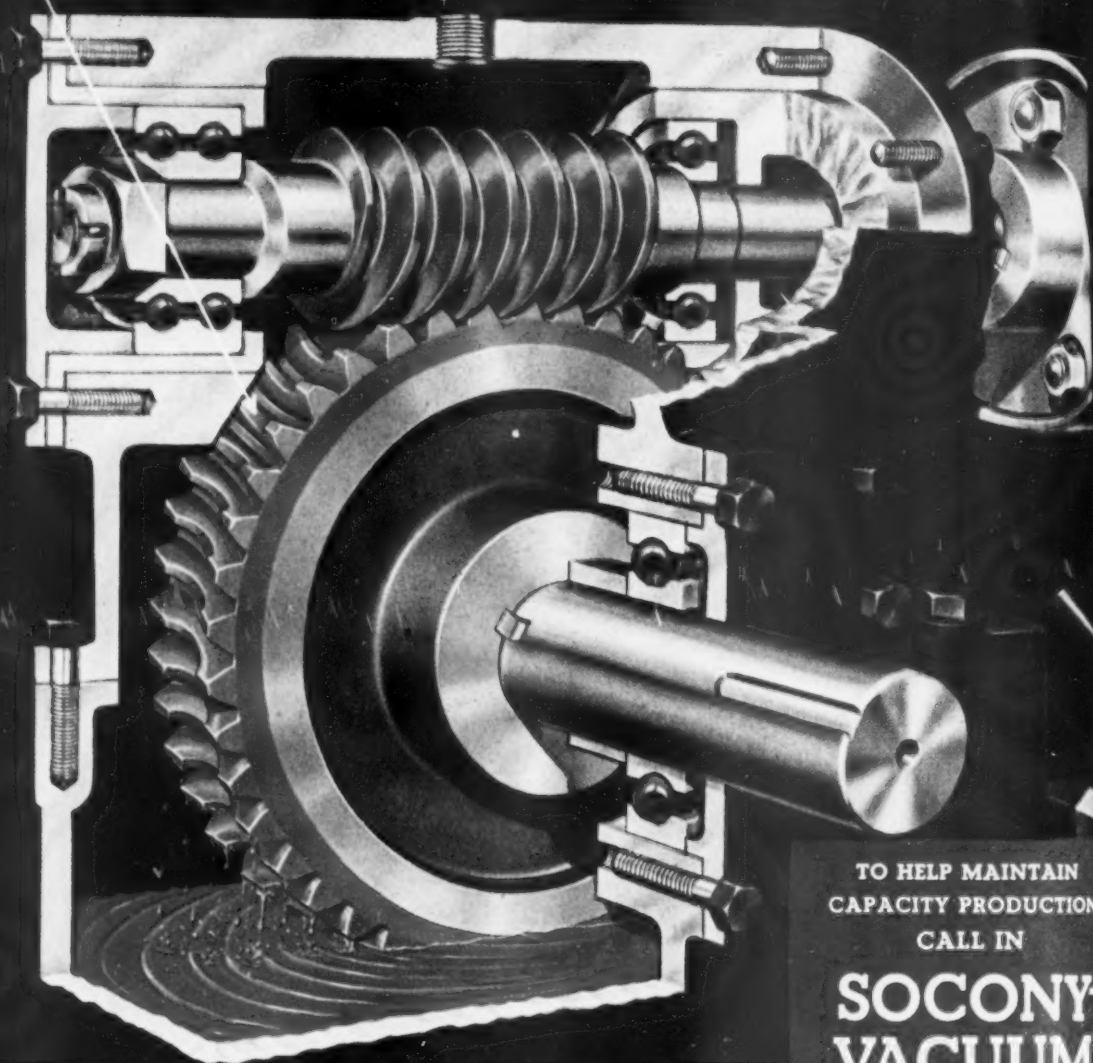
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HERE OIL RIDES AN ESCALATOR TO WORK!



Lubricating oil and oil film are shown in red in the picture above.

STRANGE-LOOKING PICTURE for a national magazine ad? Not to the engineer or production executive who recognizes the inside of a worm gear set.

And these are the men who know the vital importance of Correct Lubrication.

For instance, in worm gear sets the oil film is subjected to terrific pressures under a squashing, sliding action that seeks to wipe it off.

Socony-Vacuum makes an oil that resists this action, minimizes friction, gives gears long life.

This is just part of our 78 years of lubrication experience—experience that is available to you now to help assure capacity production for your plant.

And after the war, our Correct Lubrication will continue to assist you in obtaining low power consumption, continuous production and low maintenance and lubrication costs.

Be sure you get *all* these benefits!

SOCONY-VACUUM OIL CO., INC.—Standard Oil of N.Y. Div. • White Star Div. • Lubrite Div. • Chicago Div. • White Eagle Div. • Wadhams Div. • Magnolia Petroleum Co. • General Petroleum Corp. of Calif.

TO HELP MAINTAIN
CAPACITY PRODUCTION
CALL IN

**SOCONY-
VACUUM**

for Correct Lubrication



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There is No Substitute for Experience

EVEN with expert instruction, it is only by actually pitching that a youngster can gain the experience and knowledge necessary to appreciate the top performance of big leaguers. And only by the same method—*actual use*—can your development engineers learn to appreciate the "big league" performance of Hycar synthetic rubbers—performance you want in your own products.

Hycar is a superior synthetic rubber—completely resistant to petroleum products of all kinds, with an operating range from -65° to $+250^{\circ}$ F. and an abrasion resistance 50% greater than natural rubber. Un-

like many other resilient materials, Hycar has a minimum tendency to cold flow after taking the initial deformation, even at elevated temperatures. Further, it can be tailored to fit the job because oil-swell can be very closely controlled.

Ask your supplier to furnish you parts made of Hycar for actual test in your applications or products. The War Production Board now permits us to furnish him limited quantities without allocation for experimental and development work. Our technical staff and laboratory will be glad to give you the benefit of their broad experience. *Hycar Chemical Company, Akron 8, Ohio.*

Hycar

Reg. U. S. Pat. Off.

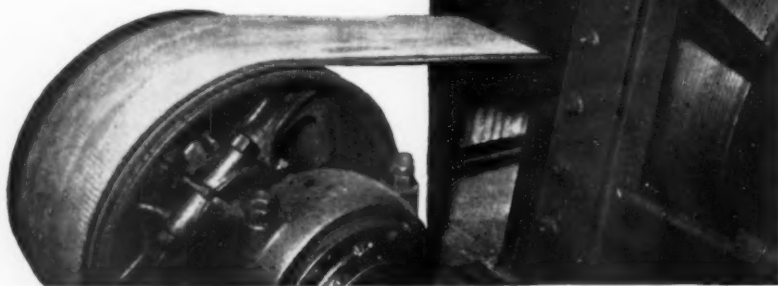
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Synthetic Rubber

Nearby Matériel Base for RUBBER

WORLD War II has drawn a parallel between successful military and wartime industrial activities—the advantages of bases close by the field of operations and the necessity of active supply lines. Mill supply distributors provide these bases for American industry and help maintain lines of supply from factory to industrial user.

Republic Rubber Distributors, located in every section of the United States, keep stocks and furnish valuable supply and maintenance service wherever rubber hose, belting, packing and other mechanical rubber products are used. Close factory and technical cooperation with Republic augments the services your Republic Distributor has to offer. Consult with him confidently on your requirements for mechanical rubber products.



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War Cars in the Offing

Automobiles are wearing out. WPB says that before long it will have to do something about it. As a matter of fact, the decision has been made to let one company turn out several hundred thousand cars.

This decision won't be carried into effect for possibly six months, maybe longer, but it won't wait until the European war is won, if that is long in coming.

Speculation points to Hudson, but this is not officially confirmed. WPB's decision will be challenged by the automobile industry, which is highly competitive and can be expected to hold out for simultaneous reconversion of all companies.

Acid Test of Policy

The clash between the major automobile manufacturers and WPB's top officials, Donald Nelson and Charles E. Wilson, over the question of permitting the company to begin production will be an acid test of the policy they have laid down (BW—Mar. 18'44, p. 15) to permit manufacture of essential civilian goods by companies able to take it on, even though the rest of an industry is tied up on war work. This policy puts consumer needs ahead of industry's interest, and in the case of automobiles, Nelson and Wilson will argue that cars are needed by war workers. As now planned, the cars will be made under contract with the Defense Plant Corp., and their distribution will be strictly controlled.

The showdown probably will come in the middle of next month when an automobile industry advisory committee, composed of the top-ranking officials of each passenger car company, will meet in Washington at WPB's invitation to discuss the problems of eventual conversion of the whole industry.

War Deferments Stand

Machinery to save for critical munitions industries about 40,000 key men under 26 probably will have to be overruled in the near future, as it is practically certain now that Selective Service will raise the nondeferable age to 28 in 1950.

Meantime, the deferment plan has been hatched off an undercover fight between the War Manpower Commission and the War Dept. over which should make

basic deferment policies. Moreover, Selective Service is showing no enthusiasm whatever for deferring critical munitions workers, in the face of expected similar demands on behalf of coal miners, railroad workers, and food-processing employees.

As tentatively outlined this week, machinery for the deferment of munitions workers would head up under the WPB Production Executive Committee. A small list of critical industries would send their deferment requests to PEC, where they would be screened and sent to state directors of Selective Service.

In grabbing the younger men, the Army is ready to sacrifice production. But, if output does fall, Under Secretary of War Robert P. Patterson will use it as another plug for a national service act.

Tighter Cost—Plus Auditing

Reports that the War Dept. has disallowed the costs of maintaining a company magazine in two cases involving cost-plus-fixed-fee contracts don't mean any sweeping change of policy. But they do presage a general tightening-up in the Army's auditing of cost-plus business.

Under fire from the Comptroller General and from congressional critics, procurement officers are being doubly careful about approving borderline items charged to cost-plus contracts (BW—Dec. 11'43, p. 7).

Morale-building expenses—such as the cost of publishing a house organ—still are eligible for approval, but Army auditors will try to see that the ratio of indirect expenses to sales doesn't run high enough to draw more criticism.

Renegotiation by Products

Contract renegotiation authorities didn't surprise anyone when they announced that their authority to exempt standard commercial articles (granted by the last tax bill) will be used cautiously.

The War Contracts Price Adjustment Board has decided to make all exemptions on the basis of types of products, not on the basis of individual companies. And these exemptions will be granted only when the board finds that competitive conditions have been enough to eliminate any excessive profits.

At the same time, the board announced that it would not force any contractor to make a refund large enough to reduce his total business below \$500,000. Without this provision, contractors on the borderline might try to hold their total business under \$500,000 (cutoff line under the new law), thus escaping renegotiation.

DPC Power Questioned

The Warner & Swasey Co., Cleveland, has put a new twist on the legal battle over renegotiation. The concern has filed suit to obtain a ruling on the authority of Defense Plant Corp. to reopen contracts under a retroactive amendment passed last summer.

Cattlemen Under Pressure

Having tried and failed to induce western cattlemen voluntarily to reduce their swollen herds, the War Food Administration will apply pressure through banks of the Federal Reserve System.

To protect their cattle paper, the banks will hint to borrowers the wisdom of selling cattle early to prevent later losses from possible midsummer drought and declining prices.

Worry over excessive cattle population has mounted within WFA and the Federal Reserve System since a statistical roundup by the Dept. of Agriculture revealed a million more cattle on range than previously had been estimated.

Officials fear a late season marketing glut and melting prices of cattle, such as occurred with hogs last winter.

New Headaches for Rails

Seeds of trouble planted during the winter railway wage dispute began to sprout this week, and both carriers and government officials feared the worst.

The danger signal went up when the Brotherhood of Railroad Trainmen announced that a bounty of \$5 will be paid to each B.R.T. man for every membership application he gets from a member of either the Order of Railway Conductors or the Switchmen's Union of North America.

B.R.T.'s relations with the conductors and switchmen have verged on open warfare since the trainmen accepted, and the other groups refused, President Roosevelt's offer to arbitrate the rail pay dispute last Dec. 23.

Bigger, wealthier, more active than



The tanks of one armored division need about 25,000 gallons of high-octane gasoline in traveling a hundred miles.

A tank's tank is always thirsty

► Multiply the appetite of just one tank by thousands and it's easy to see why gasoline is "tight" in the United States. Also why there's less Ethyl antiknock fluid available in spite of stepped-up production.

More and more Ethyl is going overseas—for every gallon of America's fighting gasoline contains Ethyl fluid.

When peace comes again, it is certain much of this high-octane gasoline will be available for civilian automobiles, airplanes, trucks, buses and farm tractors.

Even before the war, laboratory experiments with engines designed to utilize better gasoline indicated that we have by no means reached the ultimate in sound performance and economy.

Therefore, our research workers in Detroit

and San Bernardino, who are now engrossed in war work, look forward to working with the engineers of

the automotive, aviation, tractor, petroleum and other allied industries in making practical application of higher-quality post-war gasoline.



ETHYL CORPORATION

Manufacturer of Ethyl fluid, used by oil companies to improve the antiknock quality of aviation and motor gasoline

CHRYSLER BUILDING, NEW YORK CITY



conductors and switchmen (196,000 members to 50,000 and 8,800 for the unions, respectively), B.R.T. now is the time is ripe to settle its differences by invasion.

Union Is Inevitable

Three factors make this intralabor particularly serious: (1) There is friction on almost every major road in the country; (2) no machinery exists for handling jurisdictional disputes on the rails; and (3) other operations may decide to get into the

How Much for Surplus Tools?

Surplus disposal authorities have been taking a careful look at the machine industry's proposed formula for pricing surplus tools when war production is cut back (BW—Feb. 19'44,

The plan drawn up by the National Machine Tool Builders Assn. would be 75% of the original cost and subtract 1% for each month of government ownership, with 55% of cost as the minimum price regardless of depreciation.

Officials shy away from all formulas, fearing that they will give too high a price for some items, too low a price for others. They prefer a system that would allow them to negotiate sales within broad price limits.

The industry likes a rigid formula because it wants double insurance against dumping and sales to speculators.

Corn Set-Aside Seen

With only a trickle of corn moving from farms to grinders (BW—Feb. 26'44, p15)—so small a trickle that Corn Products Refining Co. closed down its Kansas City plant at midweek—an order by the War Food Administration requiring entry and terminal elevators in 124 western counties to set aside 35% of stocks and receipts was imminent this week.

The corn will be allocated primarily to wet processors supplying corn products to war industries.

Allocation for Lumber

WPB has set the stage for a system of allocation and rigid end-use control of lumber (BW—Mar. 11'44, p7) by or-

dering all large users to file applications showing their requirements for the second and third quarters of this year. All consumers using more than 50,000 b.ft. a quarter come under the new order.

For the time being, delivery of lumber will continue to be controlled by the present system, but before the end of the second quarter, WPB intends to start making allocations of specific amounts of lumber for third-quarter use.

Ersatz Preferred

WPB is accustomed to the manufacturers who camp on its doorstep begging for permission to junk their Victory models and go back to the "real thing." That's how most manufacturers feel about wartime ersatz. But there are important exceptions.

Icebox manufacturers were cold to WPB's recent suggestion that they abandon their present wooden Victory

models with fiberboard insulation, go back to sheet steel. They claim the Victory models have higher thermal efficiency, offer better insulation than the prewar product.

With the lumber shortage, WPB may force the industry to reconvert whether it wants to or not.

Red Faces in Black Market

The National War Labor Board has uncovered a black market in labor, operating with the tacit approval of government procurement agencies.

Illegal wage rates, according to NWLB, have been paid in the Norfolk-Newport News (Va.) area by building and construction contractors, who have been promptly reimbursed by the government agencies sponsoring the war projects.

Cracking down, the board established flat ceilings for building work in the

Postwar Planning Stalled in Congress

Legislation on contract termination and disposal of government-owned surpluses (BW—Feb. 26'44, p15) has run into two obstacles that threaten to block it indefinitely: (1) the variety of conflicting opinions in Congress; (2) the congressional committee system, and the intricacies of parliamentary procedure.

• **Many Cooks**—Sen. Walter F. George's omnibus bill (BW—Feb. 19'44, p17) which would set up an independent Office of Demobilization is pending before the Senate Military Affairs Committee. Meanwhile, the newly formed House Postwar Planning Committee is beating its way back and forth over the ground that George's Senate Postwar Planning Committee covered. The House Naval Affairs Committee is working over a separate bill covering termination of Navy contracts, and the House Military Affairs Committee is pushing a termination bill that would give the Comptroller General authority to review all claims before they are settled.

• **Pressure for Action**—The Administration, and the procurement agencies, are pressuring Congress to shove the termination legislation through at once, regardless of what is done about surplus disposal.

John M. Hancock, chairman of the

Joint Contract Termination Board in the Office of War Mobilization, and coauthor of the Baruch postwar report, has asked for immediate legislation. William L. Clayton, head of the newly formed Surplus War Property Administration, intends to wait a while before making any requests of Congress.

• **George's Strategy**—Many members of the House favor lifting the termination features out of the George bill and passing them as a separate law.

George himself is against this, but he may be willing to postpone action on specific policies for surplus disposal, and confine that part of the bill to setting up the Office of Demobilization which would be authorized to handle immediate disposal problems, and to formulate a board program for the long run.

• **Surplus Sales Begin**—While the grand planning lags, various government agencies are tussling with termination and surplus disposal at the operating level.

The Army has announced that it will experiment with company-wide settlement of canceled contracts using some 25 firms as test cases.

In New York next week, WPB will sponsor a sale of excess inventories now held by several aircraft manufacturers in the East.



"Zoned Heating Solved Our Problem"

"Before we installed our new Steam Heating System, discomforts and distractions due to incorrect heating were seriously affecting the efficiency and health of our workers. Our drafting rooms, requiring north light, were too cold . . . Our offices and conference room, on the south side of the building, were too hot . . .

"We chose a Zoned Webster Moderator System of Steam Heating to solve our problem. Now we have correct heat in every department. And we use less fuel!" The Webster Moderator System supplies continuous distribution of steam. Through accurate orificing, all radiators receive steam at the same time but in varied quantities, as needed. An Outdoor Thermostat automatically changes the heating rate to agree with changes in outdoor temperatures.

More Heat with Less Fuel

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Write for "Performance Facts" if you are dissatisfied with your present steam heating system. This free booklet contains case studies of 268 modern steam heating installations in commercial, industrial and institutional buildings . . . and the savings they are effecting. Address Dept. BW-3

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Pioneers of the Vacuum System of Steam Heating
Representatives in principal cities since 1888



Outdoor thermostat automatically changes heating rate when outdoor temperature changes.



Making Boosters for
U.S. Army Ordnance.

Webster
Steam Heating

area, rolling back some of the illegal rates. NWLB then appointed a panel to conduct an investigation and report back. The help of Economic Stabilization Director Fred M. Vinson was enlisted to order the procurement agencies to cooperate by producing payroll records.

The case probably will wind up with NWLB asking the Treasury Dept. to disallow deduction of a portion of the illegal wages in contractors' tax returns.

Election and the Oil Deal

Senate inquiry into the Arabian pipeline deal probably will get under way without much further delay. Meantime, the Administration will button up the deal, hoping that a fait accompli can be protected if Roosevelt is returned to the White House in November, even if the Republicans sweep into power in Senate and House.

Administration jockeying for position in the Senate investigating committee was partially successful, with members for and against apparently divided about evenly. Apart from the all-important international political angle, the deal also lays the groundwork for a policy of restricting domestic production for domestic consumption.

Capital Gains (and Losses)

The Treasury has set May 15 as the deadline when labor unions, cooperatives, mutual savings banks, and a number of other tax-exempt organizations must file returns under the new tax law.

Solid Fuels Administration won its tug of war with OPA when WPB decided this week against coupon rationing of coal during the next year. This means that Solid Fuels Administration will continue to exercise controls through dealers.

WPB Vice-Chairman J. A. Krug, chief of the all-important program bureau, will shortly join the Navy. To plug this hole, other top officials may divvy Krug's duties up among themselves.

Appointment of W. A. Kurtz, president of Philadelphia's Pennsylvania Co., as OPA's adviser on ration banking, presages a cellar-to-attic overhaul of the ration-banking system. Aware that some of the worst rationing leaks are through the ration banks, OPA has only been waiting for the right man to do a job.

Western and southern congressmen are all set to gang up on Surplus Property Administrator William L. Clayton. They want to make sure that war plants in their areas are converted to civilian use, not scrapped.

—Business Week's
Washington Bureau

PARSONS INDEX

Many business records are kept on card systems that make information quickly and easily available, consequently frequently used information is usually kept in this way. To withstand handling and wear the index card should be made from strong, durable cotton fibers, made firm and solid (not pasted) so as not to soften or dog-ear or split in use. These index cards should have a surface correct for machine or manual entries and should withstand erasures.

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THE OUTLOOK

BUSINESS WEEK

MARCH 25, 1944



Food prospects got a jolt this week when Dept. of Agriculture experts made public their preliminary tabulations on what farmers intend to plant in 1944.

Guaranteed support prices failed to coax farmers into seeding more oil crops (soybeans, peanuts, flaxseed) or such dietary standbys as peas, beans, and potatoes. **Planting intentions for flax—source of linseed oil so vital for paint and linoleum—are down particularly sharply from 1943.**

Large acreages will go into feed grains (particularly oats, which will occupy more than 46,000,000 acres, nearly 12% above War Food Administration's goal). Shortage of livestock feed for the last year is a big factor.

Failure of farmers to go along on some of War Food's programs is due to fear that there will be too few hired hands and new machines for the harvest. New draft rules won't do anything to set these fears at rest.

●
Biggest crop news of 1944 is the improvement in winter wheat. Drought in the Great Plains from October through December threatened near crop failure; conditions have steadily improved since, and present outlook is good.

A large wheat crop was never before so important. In addition to bread, expanded use in the alcohol-for-rubber program and as a feed for dairy herds in shortage areas is familiar to everybody.

Crop failure would have been crippling. Even modest imports from Canada are using freight cars now needed for other traffic and will soon compete with iron ore for space in Lake freighters. Hence jubilation in Washington over the widespread, persistent snows and rains in the Midwest.

●
War Food Administration's attempt to get a 50% increase in the sugar beet crop fell flat. Meetings now going on in producing areas will result in some increase—probably to about 700,000 acres against 619,000 last year.

Trouble is that California's crop is mostly seeded—and that state was the one where a large increase in acreage might have been realized. But War Food and Dept. of Agriculture were late in announcing support prices; **California farmers went in for vegetables whose prices offered a sure thing.**

●
Over-all food demand for 1944 will top 1943's record production by quite a margin. War Food Administration tells War Mobilization Director James F. Byrnes that military, lend-lease, and civilian **need for meat will be up 6%; for dairy products, 3%; for canned vegetables, 8%; for canned fruit, 7%.**

Dairy product needs can't be met; milk output for months has consistently been behind year-ago levels.

Meat situation is good now, will be tighter later as herds are reduced.

Many canned fruits and vegetables, with luck on weather, will top needs.

●
Look for one of the year's most important labor recruiting drives in canning.

This highly seasonal industry is going to need 700,000 workers, 107,000 over 1943. **More tin is available for cans than last year. Hope is for a 20% gain in the fish pack, for between 7% and 10% in fruits and vegetables.**

The labor mobilization drive already is getting under way in limited areas around the Gulf. It will spread northward rapidly enough to anticipate the canning season by a good margin. **Major emphasis will be on part-time help—housewives, youngsters, business and professional men.**

●
Second largest steel production in history this week highlights the recent sharp snapback in use of metals (chart, page 20). And, at the same time, United

THE OUTLOOK (Continued)

BUSINESS WEEK
MARCH 25, 1944

States Steel's 1943 report showed that **profits are most certainly not following the production curve.**

Sales of "Big Steel" were \$1,977,000,000, a new record and \$114,000,000 above 1942, but **the amount of net earnings from each dollar of sales was the smallest for any year of large production.** "It is apparent," says the report, "that ceilings are absorbing the payments to both government [taxes] and owners [net income available for dividends and reinvestment in the business]."

Squeeze between rising costs and fixed prices pinches even the companies that still are at peak volume on war work (BW—Mar. 11'44, p10). And just imagine the effect when the cutbacks really become numerous and deep.

Cement, following the boom in war plant construction, already has tasted this bitter pill. Production last year dropped 30% from 1942. Costs of labor, fuel, and raw materials all are up, but ceiling prices remain in effect.

Result: Net of Alpha Portland dropped to \$138,230 in 1943 from \$1,051,856 the year before; earnings of Lehigh Portland (after taking advantage of the credit for postwar tax refund) were \$1,667,223 against \$1,943,739; and Lone Star recently halved its 75¢ quarterly dividend rate.

Surest way to stop inflation is not price control; it's to put goods people want to buy on the shelves and in the salesrooms. That's why the plan of high WPB officials to make 200,000 or so automobiles this year (page 5) is so fetching.

True, 200,000 cars won't even dent a replacement market that certainly calls for more than 5,000,000 probably nearer 15,000,000. They won't satisfy needs for refrigerators, washing machines, butter, or shoes.

The program to give war workers a handful of new cars—badly needed as they are—can be termed nothing more than token reconversion. Yet **autos, more than anything else, symbolize civilian production;** and it had been solemnly declared that none would be made until long after Germany's fall.

Bear in mind that WPB's plan to produce automobiles may never bring results.

The idea is enough to throw the Army and Navy into duck fits; the auto industry's competitive lines would be sorely strained because any Victory model would look exactly like some manufacturer's prewar job (which it would be) and everyone would recognize it; dealers would insist on proportionate shares, and fair division of so few cars would test a Solomon.

A lot of people are going to get the reconversion itch if they see cars coming off the production lines of even a single automobile manufacturer. It's a good idea to take a look at the general rules, now pretty clearly defined:

Is your product a civilian necessity which is now badly needed?

Your war contracts have been cut or terminated, but have you been offered any new ones? Do the services insist that your plant remain as a standby in case change in the war renews demand for products you were making?

Are you in a tight manpower area?

Are the materials and components for your product available?

Would your reconversion pose insurmountable competitive problems in your industry?

If you're on the right side of **most** of these questions, **see the nearest branch of the War Production Board.** A try is worth while.

FIGURES OF THE WEEK

	\$ Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
THE INDEX (see chart below).	*239.3	†239.1	238.8	238.5	230.6

PRODUCTION

Steel Ingot Operations (% of capacity).....	99.2	99.1	97.7	100.6	99.1
Production of Automobiles and Trucks.....	17,810	17,605	18,110	21,040	18,010
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands)....	\$6,096	\$5,894	\$5,125	\$9,285	\$12,749
Electric Power Output (million kilowatt-hours).....	4,400	4,426	4,512	4,359	3,947
Crude Oil (daily average, 1,000 bbls.).....	4,385	4,381	4,385	4,376	3,904
Bituminous Coal (daily average, 1,000 tons).....	2,035	2,008	2,158	2,031	2,087

TRADE

Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars).....	80	80	78	83	76
All Other Carloadings (daily average, 1,000 cars).....	51	51	55	67	52
Money in Circulation (Wednesday series, millions).....	\$21,006	\$20,963	\$20,610	\$18,773	\$16,115
Department Store Sales (change from same week of preceding year).....	+11%	†+2%	-21%	+10%	+3%
Business Failures (Dun & Bradstreet, number).....	29	17	25	30	97

PRICES (Average for the week)

Spot Commodity Index (Moody's, Dec. 31, 1931 = 100).....	251.2	250.7	249.3	247.8	248.0
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)....	163.2	163.1	162.1	160.6	159.5
Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)....	223.3	222.7	221.1	216.9	207.6
Finished Steel Composite (Steel, ton).....	\$56.73	\$56.73	\$56.73	\$56.73	\$56.73
Scrap Steel Composite (Iron Age, ton).....	\$19.17	\$19.17	\$19.17	\$19.17	\$19.17
Copper (electrolytic, Connecticut Valley, lb.).....	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢
Wheat (No. 2, hard winter, Kansas City, bu.).....	\$1.66	\$1.65	\$1.63	\$1.47	\$1.39
Sugar (raw, delivered New York, lb.).....	3.74¢	3.74¢	3.74¢	3.74¢	3.74¢
Cotton (middling, ten designated markets, lb.).....	21.15¢	21.14¢	20.93¢	20.48¢	21.16¢
Wool Tops (New York, lb.).....	\$1.319	\$1.319	\$1.304	\$1.365	\$1.290
Rubber (ribbed smoked sheets, New York, lb.).....	22.50¢	22.50¢	22.50¢	22.50¢	22.50¢

FINANCE

90 Stocks, Price Index (Standard & Poor's Corp.).....	97.3	†96.7	93.8	96.6	86.7
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's).....	3.70%	3.71%	3.72%	3.83%	4.01%
High Grade Corporate Bond Yield (30 Aaa issues, Moody's).....	2.74%	2.74%	2.74%	2.70%	2.76%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average).....	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate).....	1-1%	1-1%	1-1%	1-1%	1-1%

BANKING (Millions of dollars)

Demand Deposits Adjusted, reporting member banks.....	33,441	32,778	31,519	32,871	32,385
Total Loans and Investments, reporting member banks.....	52,885	52,903	53,854	49,393	42,198
Commercial and Agricultural Loans, reporting member banks.....	6,396	6,369	6,446	5,992	6,027
Securities Loans, reporting member banks.....	2,637	2,788	3,012	2,319	907
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks....	38,601	38,522	39,139	35,584	29,343
Other Securities Held, reporting member banks.....	2,852	2,851	2,843	2,953	3,296
Excess Reserves, all member banks (Wednesday series).....	1,300	1,000	1,269	2,051	2,126
Total Federal Reserve Credit Outstanding (Wednesday series).....	12,643	12,438	11,961	10,315	6,699

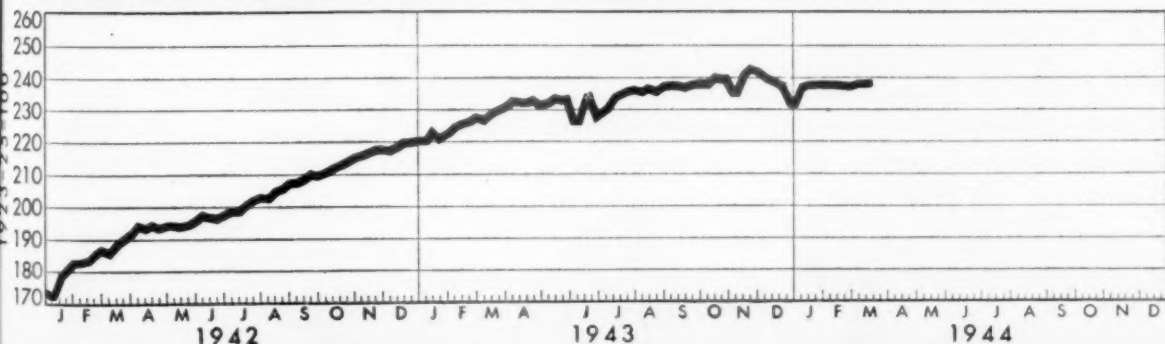
Preliminary, week ended March 18th.

† Revised.

Ceiling fixed by government.

§ Date for "Latest Week" on each series on request.

BUSINESS WEEK INDEX OF BUSINESS ACTIVITY



Every branch of the Armed Services uses the telephone. No. 10 of a series, General Staff."



At Field Headquarters sits a staff officer—telephoning. In his hands, this familiar instrument, now a weapon of war, controls the striking power of our forces in the whole area of combat. Over it flow the orders that will drive back the enemy till the final order—"Cease Firing"—is flashed to every front.



Won't YOU help them lead our men to Victory?



75th ANNIVERSARY

Western Electric

IN PEACE...SOURCE OF SUPPLY FOR THE BELL SYSTEM.
IN WAR...ARSENAL OF COMMUNICATIONS EQUIPMENT.



The ablest officers and the bravest men can win this war only with your full support. They must have weapons, food, supplies—more and MORE of them. Make sure they get them. Buy War Bonds, more War Bonds and STILL MORE!

Building Waits for a Boom

Pent up demands for housing seen calling for 2,000,000 dwelling units soon after war ends, with construction reaching spectacular proportions several years after final victory.

conversion—that No. 1 item in leg- and business thinking today—is ally considered to mean automo- and refrigerators and electric irons, in terms both of dollar potentials of social significance, the demand for these appurtenances of civilian life is consequence than one other great stifled consumer demand dammed by the war: the demand for housing war, improved, and repaired.

for two years, since WPB called a to all nonessential building by issu- its construction stop order L-41, no houses, except to meet war workers' agency needs, have been built.

Ready-Made Market—And back of still lies the vast and long-standing of the underprivileged for mini- standard shelter. That "one-third nation" which Roosevelt described "ill-housed" isn't going to let the emment forget. Witness, for exam- the action of C.I.O.'s United Auto- ile Workers in releasing a 120-page memorandum on Post-War Urban izing."

As a consequence of these two devel- ents, the construction industry has postwar market ready made—a mar- that doesn't need the over-stimula- of publicity about synthetic dream es, which the industry is now try- to hard to discourage while it directs own thinking to probable volume, er than design.

2,000,000 Units a Year—Practically all struction experts agree that residen- building will shoot upward as soon WPB takes its restrictions off, but h has his own idea of how much the d will climb.

Estimates range from 400,000 dwell- units a year, for the first ten years er the war, to 1,900,000 a year.

John B. Blandford, Jr., administrator of the National Housing Agency, says et the country needs, and can finance m private sources, a program of 1, 000 to 1,500,000 units a year for a od running from 10 to 20 years after war.

The Cautious Estimate—More cau- statisticians figure it out this way. charged soldiers, and families now ing doubled up because of housing

shortages, will provide a demand for something like 1,500,000 dwelling units.

On top of that, there will be an annual requirement of about 500,000 as the result of the normal growth of the population.

Nobody knows what to count on in the way of slum clearance, but the 1940 housing census showed 4,000,000 non-farm dwellings in need of major structural repairs (which means that renova- tion of the dwellings surveyed probably is impractical). Besides that, there are about 3,000,000 buildings that are with- out running water or other modern in- stallations.

• **Prewar Average 600,000**—All in all, construction of 650,000 units a year for the first ten years after the war probably would just keep the country abreast of its housing needs, allowing nothing for elimination of substandard conditions. A large-scale slum clearance program

might easily put the total over 1,000,000 a year.

This would compare with a prewar average of about 600,000 new units a year. Record year for homebuilders was 1925, when 937,000 family dwelling units were put in construction. The depression low was in 1933, during which period only 93,000 new units were constructed.

• **Effect of War Housing**—Emergency housing, built during the war, will hang over the market in some areas—particularly in the East where NHA already confesses to a little overbuilding—but the country as a whole probably will absorb the war housing without any difficulty.

NHA's policy has been to encourage private financing wherever the develop- ment is pretty sure to pay its way after the war. Where the project has an emer- gency use only, NHA does the financing itself, and except in the early days of the war housing program, it has stuck to temporary construction.

• **1,277,800 New Units**—By the end of 1943, a total of 1,277,800 new units had been completed as part of the war hous- ing program, 638,000 privately financed and 639,800 publicly financed. Of the government units, only 443,978 were



WASHINGTON OFFENSIVE

Doughtily defending the State Dept. in the face of mounting public criti- cism that this country either lacks a well-planned foreign policy or is badly mishandling it, Secretary Cordell Hull is launching a campaign—by press and radio—to familiarize the U.S. with

the personnel, problems, and plans of his department. Not mentioned openly, but avidly discussed in Wash- ington diplomatic circles is the per- sistent report that the outspoken Ten- nesseean resents the repeated intru- sions of the military into his particu- lar field through its wartime influ- ence on the President.

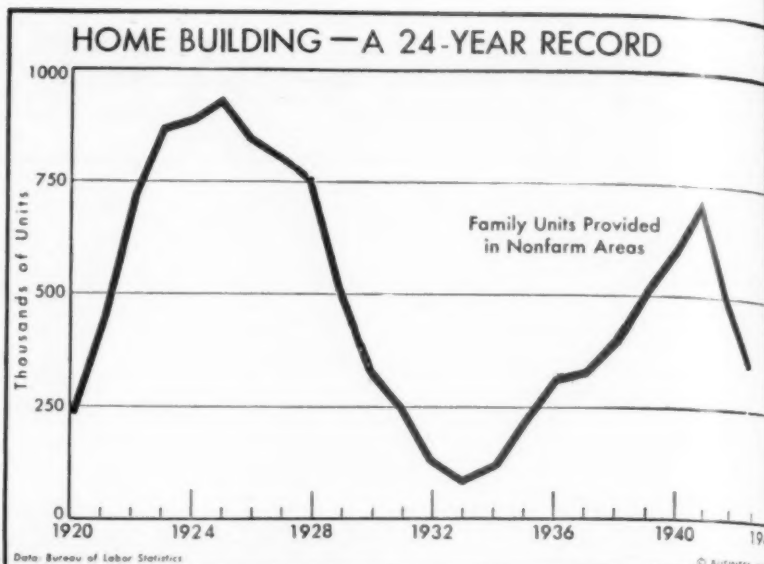
family units (the others were dormitory units or stopgaps, such as trailers). About 181,000 of these were permanent; another 190,000 were temporary; and 73,000 were demountable units that could be knocked down and taken to other locations.

The present war housing program will wind up about the middle of this year, after completing another 30,000 government-financed and 150,000 private-financed units. The chances are, however, that another 100,000 or 150,000 will be authorized for construction in the second half of the year.

• **NHA Postwar Policies**—Since Blandford took over NHA, builders have been less worried about the possibility of government competition in the postwar market. Blandford believes in federal assistance to builders but no outright public building except in emergencies. His postwar program calls for extension of the Federal Housing Administration's system of mortgage insurance, elaborate government research, and removal of wartime controls as quickly as possible. Building men also expect Blandford to make a bid for cabinet rank, which would put NHA on a permanent post-war basis.

All this, however, will stay on the shelf at least until the end of the German war is in sight. For the immediate future, the construction industry will continue under the rigid system of wartime controls.

• **Lumber Supply Tight**—Toward the end of 1943, WPB Chairman Donald



Home builders build great hopes on the statistical record. The boom after the last war was marked. Further, building runs in longer, steadier cycles than does general business, and the

trend was up in 1941 when war came. Hence the hopes for a triple postwar market: to make up depression-born and war-created shortages, as well as to effect normal replacements.

M. Nelson had drawn up plans for relaxing some of the restrictions on construction, but Army and Navy representatives on WPB killed the idea. Now, the pinch on lumber threatens to set limits on construction for some time after other industries have got back

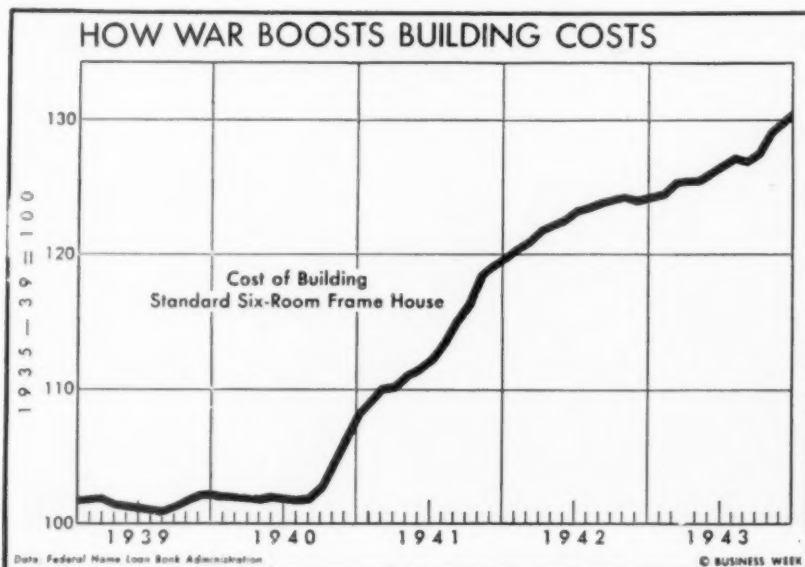
on something approaching a peacetime basis.

In WPB's plans for 1944, civilian housing comes in for a scant 1,600,000 board feet of lumber, which is a very short ration indeed when compared with the 8,300,000,000 board feet it got in 1941, and the 6,500,000,000 consumed in 1939.

Lumber will remain tight. Only 5 or 6 billion board feet will be available for home building even in the first year after final victory. Because of manpower and logging equipment shortages, output isn't apt to hit 1941's 36.5 billion board feet even in the first postwar year, much less during the war. Crating of arms shipments will be the big war consumer, restricting other uses. In the postwar year, factories, maintenance, boxing, and nonhome construction altogether are apt to take as much lumber as at the prewar peak. Also, we may have to export for rehabilitation, and much of the 11 billion board feet drained off from mill and retailer stock during the war will have to be replaced. Home building will have to absorb the shock.

• **Controls Relaxed**—Although WPB has not relaxed its over-all restrictions on building, it has started on a program of simplification which is designed to make the system of controls easier on the builders.

Its first move—which coincided with general improvement in the supply of scarce materials—was to eliminate the



Most persons don't realize that it would cost one-third more to build a standard house now than five years ago. Costs rose 10% by early 1941, 10% more to Pearl Harbor, and 10%

again during the war. Building men foresee little cheapening of labor or materials. Afraid of pricing themselves out of the postwar market, they are turning to new cost-cutting methods.

process of "stripping" applications. Under this procedure, applicants would submit a list of the materials they would need for their projects, and WPB would go over the list, squeezing down the allotments of scarce materials. Now, WPB simply gives the contractor a go-ahead on the project.

• **Steps in Transition**—The next simplification move will be to eliminate separate end-use controls on items used in construction, incorporating all controls into the review of the contractor's application. WPB is working on this now.

Eventually, when manpower and material supplies permit, WPB will start relaxing its master order L-41, which controls construction.

The first step will be to raise the cost limits on projects that can be undertaken without approval. After that, WPB probably will start approving all projects that do not interfere with war production, instead of giving permits only for construction that is essential to the war program.

• **When Will Boom Start?**—Even when the controls come off, many builders think it will be some time—perhaps several years—before any sort of housing boom can get under way.

For one thing, prospective home buyers probably will be slow about getting their orders in. Soldiers will have to wait until the Army lets them go. War workers will be slow to buy homes until they have decided where they are going to live, find jobs, and see whether their new employment looks permanent. Besides that, it will take time for the building industry to organize itself for postwar construction.

• **Big or Small Builders?**—Most of the experts think that most of the building of the postwar period will be done by large contractors, using mass production methods on the site. These experts believe prefabrication will tend to cut the ground from under the small builder, but under the present wage and price structure, a big contractor probably will be able to shave site-fabrication costs under prefabrication costs.

• **Postwar Designs**—When it comes to the design and architectural details of the postwar house, builders line up solidly on the conservative side. For at least the first few years after the war, builders think improvements will take the form of small conveniences—bathroom mirrors that don't fog over, built-in kitchen equipment, luxurious bathrooms, and other installations that the average home buyer vaguely associates with gracious living. The Buck Rogers adaptations of wartime discoveries—in light metals, plastics, electronics—will make their appearance gradually and only after manufacturers have had time to get buyers ready for them.

Line Will Hold

Although labor unions are ganging up on the Little Steel formula, odds are that it will last until inflation threat passes.

Wage-price stabilization entered a critical phase this week when the National War Labor Board opened hearings on the C.I.O. steel workers' demand for a 17¢-an-hour wage increase—a demand which, if granted, would break the back of the Little Steel formula (limiting wage increases to 15% above levels that prevailed Jan. 1, 1941).

Currently, the odds are that the Little Steel formula, and with it wage stabilization, will survive at least long enough to ease the country past the present inflationary threat.

• **Deferring the Showdown**—Briefly, the Administration's strategy is this: It hopes to defer an absolute showdown on the steel workers' demands until Congress has concluded action on extension of the Emergency Price Control Act, which is due to expire June 30. Congressional hearings on this controversial piece of legislation began this week.

Either way—whether it says yes or no to steel labor—the Administration will lose its present bargaining position in fighting for effective price control if its

hand is forced on the wage issue first.

• **A Losing Battle**—If NWLB grants a wage increase and throws the Little Steel formula into the discard, the Administration will have no chance of averting a flood of crippling amendments to the price measure.

If NWLB turns the steel workers down, it will precipitate a plague of labor troubles. With labor kicking over the traces and making it clear that it intends to strike for a wage increase, no special interest group in the country—farmers, manufacturers, retailers—will be willing to accept any restraint on its freedom of action, and price control is certain to be engulfed in the ensuing melee.

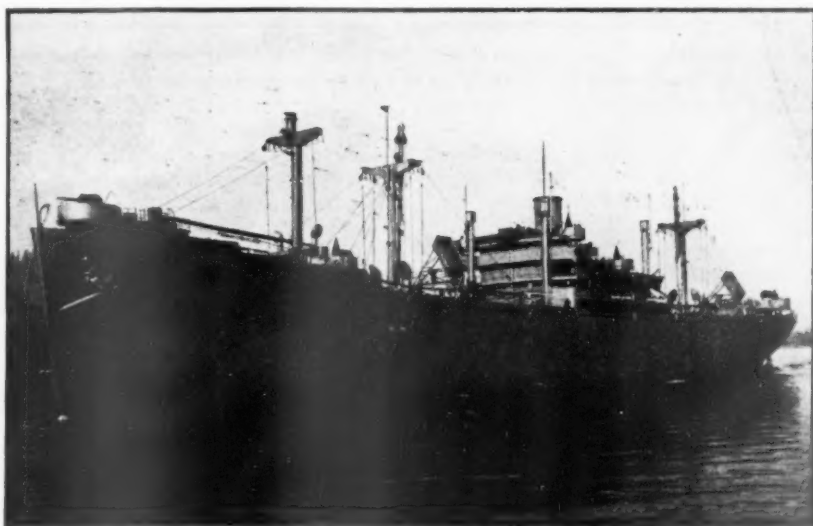
• **Always a Threat**—The demands of special interest groups constitute a threat which at best always hangs over the head of OPA.

Thus, when the original act of January, 1942, came up for amendment in October of that year, the farmers almost succeeded in upsetting the apple cart and did force through provisions which limited OPA's power to control of above-parity prices.

This time again the farmers and other groups threaten to break through the Administration's thin line of defense.

• **Better Atmosphere**—But if the steel workers can be stalled off until after the final vote is taken on the price stabilization measure, the political atmosphere may actually improve.

For one thing, the cost of living, as



VICTORY SHIP NO. 1

Most significant of the 134 cargo vessels delivered by American shipyards during February is the first Victory ship—SS United Victory. With a speed of 15 knots or better, the new

craft is a high-speed version of the eleven-knot Liberty ship, and is expected to form the backbone of Uncle Sam's postwar merchant fleet. The first Victory ship comes from Henry J. Kaiser's Oregon Shipbuilding Corp., which has a contract for 108 more.



MANPOWER WARRIORS

With the White House their battleground, Donald Nelson, War Production Board chairman, and Paul McNutt, War Manpower Commission head, won a skirmish last week over the Army and Navy (BW—Mar. 18'44, p9). Taking exception to the blunt military viewpoint that no men 18 through 25 should be deferred, Nelson and McNutt argued before the President that the newer industries—air-

craft, electronics, and synthetics—are dependent on young men, and they warned of an impending production breakdown if key men were lost to industry. Finally, the military reluctantly concurred with WPB's plan for deferring at least 40,000 key men under 26, but the battle is far from over. Nelson and McNutt are now reported seeking presidential backing for their stand that the military should keep its hands off Selective Service policies in the future.

measured by the Bureau of Labor Statistics index, has shown a tendency to decline fractionally, and its performance may be improved in the next few months. The abundance of farm crops may enable OPA to turn its attention to the more unruly elements in the price index, such as clothing.

Finally, invasion is counted on to put a quick quietus on partisan fights—to speed enactment of a price control law with teeth in it and to put the steel workers on the defensive.

• **How A.F.L. Views It**—Entrance of the A.F.L. into the picture provides the most realistic estimate of what chance C.I.O.'s steel workers have of ultimately wringing some wage concession out of the Administration.

A.F.L. asked NWLB to recommend presidential review of the Little Steel formula—officially, only the President can review the formula since it was incorporated in the executive stabilization order of last April—and the fact that the board brushed off the A.F.L. is not significant.

• **Sharing the Glory**—What is significant is that the A.F.L. sought to inter-

vene in the case at all. The federation obviously expects to share with C.I.O. in the glory of busting the line.

A.F.L. leaders know that two determined union groups in other basic industries—coal and railroading—succeeded in winning concessions when they refused to take no for an answer to their wage demands, and they expect the equally determined steel workers to do at least as well.

• **In at the Kill**—And while it was possible to give the miners and rail employees more money and still preserve the letter, if not the spirit, of the Little Steel formula, this can't be done with Phil Murray's union, whose wages formed the basis for the formula two years ago.

Consequently when steel wages go up, the formula comes down, and the A.F.L. isn't going to give up its fight to be in at the kill.

• **Behind the Quarrel**—This assumption—that there is going to be credit worth sharing—lies behind the bitter wrangling which has been going on inside NWLB for the past week. A.F.L. wants its day in court when the hearings open.

Responsible for delay in the board getting down to work on the steel case, the wrangling actually played into the Administration's hands.

• **Delay Helps**—Time, it is felt, is on the President's side. The first reports of the steel wage demands were heard last fall. They became official in December when the union invoked the escape clause in contracts covering the whole industry to terminate the agreement around the end of the year. The case is only now coming before the special NWLB panel for a hearing on its merits. The hearings will take weeks. NWLB's decision will take still more weeks.

Meanwhile, invasion day draws closer—and of all the principals involved in the wage fight, only Roosevelt knows how much closer. He's taking it for granted that Murray won't strike the steel industry while landing barges are shuttling across the Channel. And the President is assuming that Murray is no John L. Lewis.

• **No Lewis, But**—Hardly novices at figuring out a labor play, A.F.L. leaders are betting the other way. Prepared to grant that Murray is no Lewis, the federation leaders think that in this particular situation he's got to be a carbon copy of Lewis.

The union bosses know that a strike at a time when we're fighting for a foothold in France would be very bad public medicine. On the other hand, they are certain that its effect on the war effort would be less serious than before the invasion begins. Now, we're bending every effort toward cramming the English arsenal with war material. A strike now would hurt. When the military operation starts, it will signify that the English base is stockpiled to the roof.

• **Courting Public Opinion**—Union strategists think that this might be made clear to the American people, might blunt what otherwise could be a savage reaction to a steel strike. They also count on the day after the invasion has been successfully landed as being "national postwar think day," and they look for a scramble commencing then for postwar positions.

This explains why Murray has not frothed and fumed at the delay in getting on with the steel case.

• **Support From the Index**—An important element in the steel workers' case is the timely performance of the cost-of-living index. Between Jan. 15 and Feb. 15, the index declined fractionally to 123.7. When the President issued his hold-the-line order last April, it stood at 124.1.

The index shows that the price line is holding, and this automatically dampens the argument for higher wages.

River Squabble

Upper Missouri irrigation interests seek protection against navigation project. Congress to act on 244 waterway projects.

A rosy mist of unreality has hung over the perennial river and harbor authorization proposals in recent years. With waterway projects constricted by the war, Congress hasn't bothered to pass a river and harbor bill since 1938. But things are different now, and the day when an authorization will mean actual work seems to look closer.

Big Program—Pending now is a bill authorizing construction of 244 projects, at a first cost of \$420,675,396 including local contributions of \$8,635,150, and involving additional annual maintenance and operation costs of \$3,550,500. Of the various projects, 23 would cost over \$2,000,000 each.

Over 200 additional projects are listed for which the Corps of Engineers would be authorized to make surveys, although an authorization for construction on this group is being asked for at the present time.

Minority Report—The bill was accompanied from the House Rivers & Harbors Committee by a minority report on three of the biggest and most controversial projects: the Alabama-Coosa River, which is estimated to cost \$60,000,000; the Savannah River below Augusta, Ga., estimated to come to \$28,000,000; and the Tombigbee-Tennessee waterway, \$66,000,000.

Fight Over Missouri—But the biggest fireworks have developed over the engineers' proposal for a 9-ft. channel in the Missouri River down from Sioux City, thus making the river a part of the great Mississippi Valley barge system. The proposed 700-mi. channel would be 100 ft. wide.

The Missouri River issue technically covers amendments to the proposed legislation, but the real question is whether irrigation or navigation interests shall have control of the vast Missouri basin (BW—Feb. 19'44, p41).

Several Projects—The upper waters of the Missouri are now largely used for irrigation. The federal Bureau of Reclamation has a long string of irrigation projects operating—Kendrick, North Platte, etc., and it is convinced that if enough water passes down the river to maintain a 9-ft. channel, irrigation will suffer as a result.

When the \$6,000,000 project was proposed in February, residents of the upper Missouri basin learned to their dismay that it would take more than 80%

of the river's estimated flow, and that there would be little water left to be used in the development of new irrigation projects.

This week, irrigation proponents proved that they had mustered considerable strength, and they still may win enactment of an amendment giving preference to irrigation uses for the river. An amendment to this effect was defeated in the House by a tight vote of 98 to 94, and a hot fight on this issue is expected before the bill reaches final enactment.

• Aid in Senate?—The irrigation group looks for more support in the Senate, where the 34 senators from the 17 irrigation states constitute a formidable bloc.

In the House committee, Missouri irrigation proponents lost a major point in the wording of the amendment. They proposed that navigation improvements be built only if they did not interfere with use of the river for "domestic, irrigation, mining, or industrial purposes heretofore or hereafter established under state law."

• "Meaningless Wording"—The committee substituted an amendment that the improvement should not "create any demand on the water resources of the Missouri basin over that now authorized by existing law." The irrigation group claims that this new wording is meaningless.

Rates Under Fire

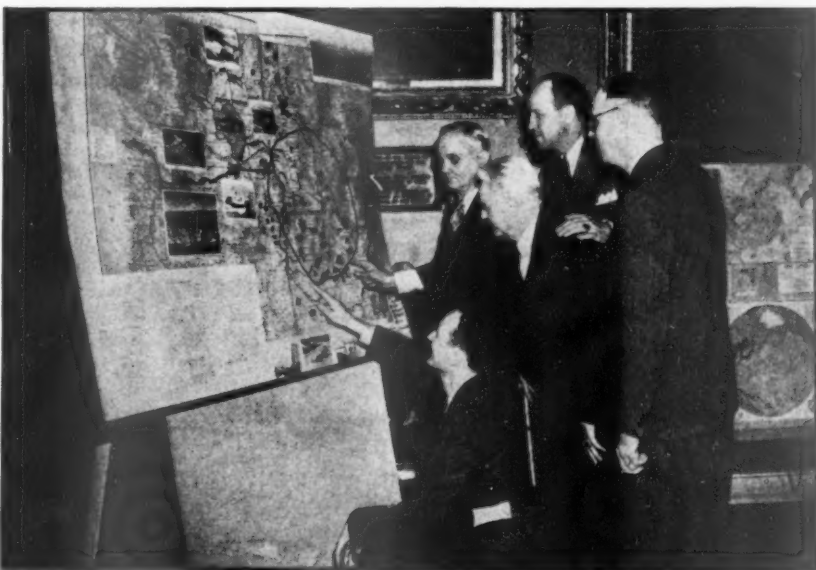
Government's advantage through land grants to railroads is challenged again. Carriers feel they've paid for the land.

Land-grant freight rates, a 94-year-old question, occupied the attention of the House Interstate Commerce Committee this week as the latest effort to repeal such rates appeared to be gaining headway.

• A Hardy Perennial—Hearings on the latest repealer, by Rep. Lyle H. Boren of Oklahoma, renewed a controversy that is perennial (BW—May 29'44, p50) with an impressive array of data and arguments.

A north-south transcontinental railroad from the Great Lakes to the Gulf of Mexico was made possible by two federal land grants 94 years ago—2,595,133 acres to the Illinois Central and 1,140,872 acres to the Mobile & Ohio.

These were the first of dozens of federal and state land grants during the empire building days of 1850-71 by which the railroads acquired a total of 179,284,978 acres of public domain, equal to about one-tenth the area of continental United States. Compar-

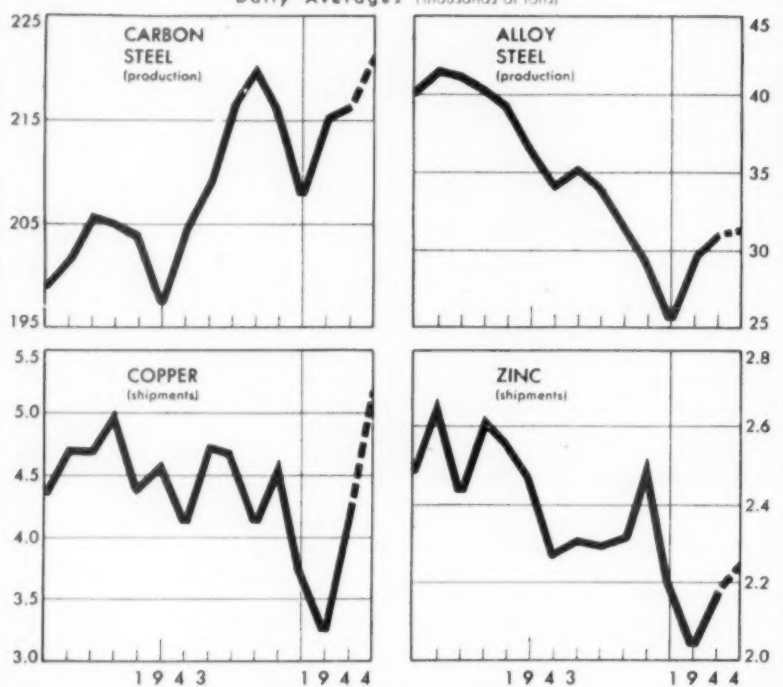


It's been four years since Congress has granted funds for any new river and harbor projects, but the end of the home district expenditure drought is in sight. Hence the eagerness with which (left to right) Rep. Compton White of Idaho, James O'Connor of Montana, Lowell Stockman of Ore-

gon, Hal Holmes of Washington, and (kneeling) Mike Mansfield of Montana study a map locating four proposed dams to increase navigational facilities of the Columbia and Snake rivers. The dams are included in the 420-million-dollar measure calling for authorization of 244 projects.

IN THE OUTLOOK: SNAPBACK IN METALS

Daily Averages (Thousands of tons)



Contrary to expectations, metals have been tightening up since the turn of the year. The change has been general, and demands for key metals, copper, and carbon steel have hit new highs. The implication for civilian goods programs is clear-cut: Present military use not only prevents further release of metals but may even cut deliveries on civilian allocations already

made. Zinc, copper, and alloy steel are going into many more artillery shells, for one thing. New types of guns are taking more steel tube, pipe, bars; landing ships are consuming more plates and shapes; and more rail is being made for the carriers. But even so, it isn't quite clear where all the metal is going—unless it's to inventory—or for how long.

tively, other grants strictly for right-of-ways were of minor importance.

• **Mixed Blessing**—For the railroads, this shower of public land was not an unadulterated blessing. Some grants entailed a provision that government property and troops be carried free. Others gave Congress the right to fix rates on government business. A few others provided that rates on government freight were not to exceed rates paid by private business.

But nearly three-fourths of the grants (72% of the area) required the benefiting railroad to be "a public highway, for the use of the government . . . free from any toll or other charge upon the transportation of any property or troops of the United States."

• **Government Pays 50%**—This toll-free privilege, railroad lawyers contended, meant that government freight should

not pay any capital charges, but should pay operating charges. Extensive litigation resulted in a Court of Claims decision that the government should pay 50% of regular rates, and that this reduction should apply only to transportation over land-grant mileage.

In order to meet competition from land-grant lines, other railroads, particularly those in the West, have adopted equalization rates. Government freight has been expedited by these equalization rates, which removed the obligation to use land-grant lines even when their routing might involve detours and delay.

• **Repeal Urged**—Whether the railroads or the public got the better of the land-grant deals in general remains a question. For years, the railroads have been urging repeal of land-grant rates as discriminatory against private

shippers and unfair to railroad owners.

Its importance for the railroads is measured in an estimated revenue differential of \$20,000,000 a month. That is, if the government paid full rates on its shipments, it would pay the railroads \$20,000,000 a month it now saves by application of land-grant rates.

• **Burden on Shippers?**—The railroads contend that rate concessions already have paid the government more than market price for the land grants, and that the government, by holding on to its land-grant rates, forces private shippers to assume more than their share of railroad operating costs. (Gross operating revenue of American railroads last year exceeded \$9,000,000,000. It has been estimated that government freight, directly and indirectly, accounted for about 40% of this total.)

A complicating side issue has been whether to consider lend-lease and Maritime Commission construction materials as military or naval property, for freight rate purposes.

• **The Upper Hand**—But because it is the biggest source of rail freight, and because the Interstate Commerce Act gives government agencies the right to negotiate special rates on any government shipments, the government holds the upper hand in any dispute over what it should or should not pay.

The railroads cite this provision as a further reason to abolish land-grant rates. They also argue that under present conditions the government would capture most of the \$20,000,000 a month differential—if land-grant rates are repealed—through the excess-profits tax. Being railroad property, the grant lands are taxed on the same basis as other real estate owned by the railroads.

(Recent agreement on western freight rates on government goods which was estimated to save government agencies up to \$50,000,000 a year had no connection with the land-grant rate controversy. It represented two years' negotiation and a compromise agreement on special rates applied to various kinds of government shipments for export.)

• **Carriers Sustained, But**—Bolstering the case for repeal was a well documented report by the Transportation Board of Investigation Research, established by Congress in 1940, which concluded that, in broad terms, the railroads had paid for their land by rate concessions and that such concessions no longer were justified.

But there was one hitch. The board's report and its chairman, Robert E. Webb, former Kentucky state railroad commissioner, urged Congress to require that the railroads still holding granted land—all but 16,000,000 acres has been sold—give it back to the

ment as a condition of repeal. The board's other member, C. E. ... favored unconditional repeal, ... recommended a three-year investi- ... of western rates. Webb indi- ... he thought Congress might want ... the remaining farm land for ... to returned soldiers who ... to farm.

Hold 98%—The 15,840,077 ... which remain have been valued at ... \$60,000,000. About 98% of it ... by Southern Pacific (8,044,476 ... Northern Pacific (4,819,732 ... Santa Fe (1,784,616 acres), and ... Pacific (923,239 acres).

These four companies and their pre- ... sor lines, the board's report states, ... 73% of the total federal lands ... to railroads. With ten others ... owning granted land—Atlantic ... Line; Canadian Pacific; Chicago ... Northwestern; Chicago, Burlington ... Quincy; Chicago, Milwaukee, St. ... & Pacific; Great Northern; Illinois ... & Missouri-Kansas-Texas; Mis- ... Pacific; and Seaboard Air Line— ... received 95% of the federal grants.

Colleges in Black

Some small schools are hard hit by war, but the over-all picture shows higher education in U. S. making ends meet.

Higher education in the U. S.—a big business in which 1,607 reporting institutions had a gross income of \$625,906,743 in 1943—has not been as hard hit by the war as some newspaper reports have suggested.

Higher education's balance sheet for 1943, as established by reports from colleges and universities reporting to the Office of Education, looks better than it did before the war—revenues down \$11,590,147 from 1939-40; expenses cut by \$14,824,478 to offset the decreased income. This, of course, does not mean that every college is prospering. Many smaller schools are badly off.

• **Hit by Depression**—In common with all other business, higher education was

BIG TEN—FINANCIALLY

The ten U. S. universities with the largest endowments are as follows:

Harvard	\$154,140,303
Yale	106,153,510
Columbia	89,135,728
University of Chicago ..	71,350,268
University of Rochester ..	51,821,181
University of Texas	47,490,895
Duke	38,963,698
Massachusetts Institute of Technology	37,266,000
Princeton	35,000,000
University of California ..	33,241,376

hard hit by the depression. But, paradoxically, conditions born of the depression helped the colleges and universities to weather the storm. Student tuition fees reached unprecedented levels because young men and women flocked into the classrooms when they couldn't find jobs.

During the depression, the investment income of the universities took a nose dive because of shrunken returns from endowment funds. Fiscal management, sometimes amounting to financial miracles, and the aid of alumni tided over many schools.

• **Wartime Troubles**—Bleak as the outlook was early in the depression, college trustees anticipated many a headache when war came to the U. S. They expected the young men to leave the campuses in droves for the services and that happened. Many a college student was yanked from the classroom.

But many of the boys came back to take specialized Army and Navy courses (Navy V-12; Army A-12), for which the schools received, in many cases, more from the government than their peacetime income.

• **Headaches Return**—The headaches returned a month ago when the Army suddenly announced that by Apr. 1 it would pull 110,000 of its 145,000 students out of college and mark them for the combat zones. Small colleges for men saw a temporary end to their existence.

The big universities with medical, engineering, and physics courses suffered less, because the Navy didn't cancel its courses. Schools with Navy V-12 programs, like Dartmouth, were hardly affected by the new turn of events.

• **Army Relents**—Barely ten days before the next examinations for entrance to the specialized courses (Mar. 15) the Army came forward with the hope of renewed aid for the smaller schools. With the cooperation of the American Council on Education, the War Dept.

IMPRESSIONS IN WAX

Used for centuries by sculptors, the "lost wax" method of molding has been adapted by General Electric to quantity production of intricate turbo-supercharger parts. Wax models (left), cast in lead impressions of original patterns, are invested in heat-resistant plaster, then melted out in ovens (below). Result: molds for the final casting of the intricate parts that are so accurate as to make further machining unnecessary.



How Trustees Invest Funds

Charitable, social, or college foundation trustees once could pretty much guarantee the safety of principal and required income by maintaining full portfolios of high-grade corporate bonds, some governments, and a few blue-chip preferreds.

But by 1932, as the Carnegie Corp. of New York learned (BW-Jan. 22/44,p72), those "good old days" had long since vanished. Old investment policies had to be altered to re-establish the safety of principal during the period of rapidly changing conditions. Trustees have since had to take into consideration serious war

and postwar investment problems.

As a result, less emphasis is now placed on corporate bonds, and greater stress is laid on building up government holdings, a procedure which has cut income drastically since "safety of principal" and "satisfactory income" don't always jibe.

Holdings of preferred and common stocks (table) have also grown into an important part of many portfolios. These have been carefully picked not only to augment income but also to provide protection of capital in the event of a subsequent inflation.

	Date of Report	Percent of Security Holdings—		
		Bonds	Preferred Stocks	Common Stocks
Foundations				
Carnegie Corp. of N. Y.	9-30-43	79.9	2.1	18.0
Carnegie Inst. of Wash.	10-31-43	61.8	6.8	31.4
Rockefeller Foundation	1-1-43	38.0	6.9	55.1
Russell Sage Foundation	9-15-43	54.8	29.8	15.4
Colleges				
Cornell University	6-30-43	38.6	19.2	42.2
Mass. Inst. of Tech.	6-30-43	47.0	2.0	51.0
Princeton University	6-30-43	48.7	15.9	35.4
Harvard University	6-30-43	51.6	10.8	37.6
Yale University	6-30-43	43.6	19.2	37.2

advised 17-year-olds to take the exams and promised that, if accepted, they might get at least six months' college training at Uncle Sam's expense.

It is estimated that 150,000 took the tests, and that from 25,000 to 50,000 will pass and be sent to college at government expense.

• **Alumni to the Rescue**—In addition to the help Army and Navy payments have been to the universities in surviving their war-made problems, more alumni are sending more money back to Alma Mater than ever before, as a result of intensive campaigns.

Dartmouth alumni lead all others, with a record of 57% contributing. Yale is second with 33%, averaging \$17.60 each. Columbia collected \$151,621 last year, equivalent to the income of 4% from an endowment of \$3,790,000.

• **More Women in School**—Another substantial chunk of new revenue is coming from the increased number of women enrolling in the colleges. Parents who can't send their uniformed sons to college are spending some of their war incomes on their daughters.

Oddly enough, many of the girls don't want to go to schools that are full of men in uniform. That's why many a small women's college is better off financially than some small colleges for men.

In addition, Army and Navy pro-

grams for the education of service men and women discharged during the war offer a limited potential source of new revenue. The Army and Navy have discharged 1,329,000 men and women thus far, but only 150,000 of them are potential claimants for government aid for education under existing law passed to aid veterans of the last war. And only a few of these seem interested, for the Veterans Administration reported recently that it had only 613 veterans in college and 245 learning "on the job." The trickle of service men and women back to school is a rill compared with those flowing into industry.

• **Fears**—More dollars and cents, however, are by no means the complete picture of the changes going on and foreseen in education. Many a U.S. educator is worried over the possibility of federal control of colleges after the war.

When there is a government subsidy in one hand, many educators see a fistful of government regulations in the other. Nevertheless, the land-grant institutions (like the Universities of Minnesota and Wisconsin) have managed to maintain independence while accepting federal money.

• **Postwar Outlook**—A vast program of government-paid postwar education is in the works. It is popularly called the G. I. Bill of Rights. It covers all pro-

posed grants to service people to be paid after the war (except a bonus includes \$500 free tuition plus \$300 month subsistence, for every war veteran for college study leading to a degree. Most of the veterans would get a year in college, but special students could get up to four years.

• **Billion Bonanza**—How many veterans will take advantage of government aid and go to college after the war is anybody's guess and is dependent, of course, on the number of jobs there after the war.

A survey made last August among 10,000 soldiers revealed that about 10% would go to college after the war if they got government aid. No doubts that they will get it.

Therefore, if a million veterans were to get roughly \$1,000 each to spend during the war to go to college, there is going to be a billion-dollar bonanza of new business available for the universities and colleges when peace comes.

• **Effect on Business**—President Roosevelt has said he favors college aid for veterans. The intent of Congress seems clear. What the veteran himself will want, however, remains the great unanswered question.

If a program of education will contribute and lighten the labor supply that industry must absorb after the war, business stands to profit.

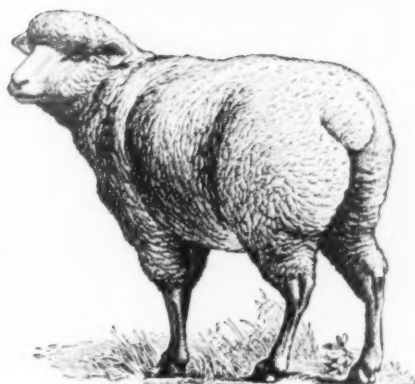
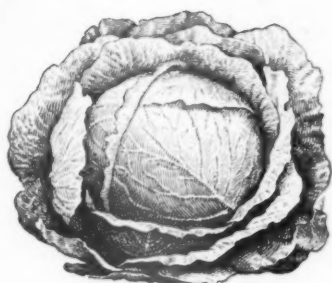
Indirectly, business will gain even more in the long run, educators believe, because of better trained and informed employees, more material from which executives and administrators can be drawn, and more intelligent consumers with higher standards of living and greater purchasing power.

TOO MUCH POPLAR

Upper Michigan farmers last winter had little to do aside from routine chores, so they took advantage of record high prices to cut pulpwood. Hardwood for pulp, paper mills advertised for poplar, since a certain amount of poplar logs can be mixed with the usual spruce and balsam.

This was a golden opportunity for farmers, because poplar is plentiful in Upper Michigan and is easy to cut. Much poplar was cut, to the exclusion of balsam and spruce, that the paper mills had to stop buying poplar to encourage the cutting of other pulpwood.

Because cutting was so extensive, Michigan conservationists persuaded the state legislature to appropriate \$1,000,000 for the purchase of 43,000 acres of timber land in the famed Porcupine Mountains area, on the Upper Peninsula, for development as a state park. Acquisition of the land is now in progress.



Can you get 'em across the river?

"We've got a fox, a sheep and a head of cabbage, see? (Don't ask us how you got 'em — you just got 'em.) You want to ferry all three across this river. You make as many trips as you like, but you can't take all at once. One at a time. Now, if you leave the sheep alone with the sheep, he'll raise old Ned with mutton. And if you leave the sheep alone with the cabbage, you won't find enough cabbage left to make soupful of cole slaw. How are you going to get all three across the river?*

Our psychologist friend says if you can do this in six minutes you're right smart. And if you can do it in three minutes — why, you're a puzzle expert.

We're experts on puzzles, too — but a different kind. *Figures* — that's our specialty. Particularly when they're connected with business and industry. When a puzzle has something to do with costs and payrolls — we have a field day. We've got puzzles like that down to a system. Actually make *machines* do the work.

We call our machine the Comptometer. It's fast, to save manpower; economical, to save money. It's a vital weapon in Management's battle for increased production. Felt & Tarrant Manufacturing Company, 1733 N. Paulina St., Chicago 22, Illinois. Makers of Comptometer Adding-Calculating Machines.

* If you can't figure this one out — write us.



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TION ISOLATING FELTS AND INSULATING FELTS

Crisis in Tires

Big truck casings are put under strict allotment. Survey indicates 1944 production will be at least 1,500,000 units short.

Truck tires suddenly have fulfilled the off-the-record fears of the rubber industry; they have become a prime bottleneck. Proof is that they have been put under an allotment procedure as tight as the Controlled Materials Plan (BW—Feb. 26 '44, p68).

• **1,500,000 Short**—This action followed a comparison made by WPB of truck tire needs and production schedules for 1944.

According to the Office of Defense Transportation, more than 5,000,000 casings will be needed for original equipment this year. But the producers reported that their best production figures limit output to about 3,500,000 casings for original use, out of the total projected for both original equipment and replacement.

• **A Three-Edged Problem**—Dominant among the reasons for this situation was lack of production facilities, manpower, and, to a lesser extent, material.

The tire industry's estimate of 3,500,000 heavy casings was out of date almost before it was completed. A tougher

manpower policy (BW—Mar. 15 '44) had upset the best laid plans of the producers and Rubber Director Basil Dewey. Unless young chemists, young, husky tire makers were detached from military service, Dewey claims the military tire program would be in serious trouble.

Military truck and bomber tires range from 223 lb. to 387 lb. each, and big production calls for strong men. Strong, young tire makers are taken, Dewey reported, military production would be hit hardest.

Tires are processed in metal molds and not enough molds in the big sizes are available to meet requirements.

But even if molds were manufactured under rush order, a large question rubber supply would confront the producers. Truck tires, unlike passenger casings, now contain 25% to 50% natural crude rubber at this stage of synthetic rubber development. (The proportions will change after April. WPB has ordered tire makers to use a larger proportion of synthetic in order to ease the materials problem.) Synthetic rubber generates so much heat in heavy duty use that mixing it in substantial proportions of natural rubber is necessary. The quantity of natural rubber required for all the big tires called for in 1944 will be a serious drain on dwindling stocks.

• **Schedules Pared**—Eight U. S. agencies are involved in the new tire allocation



MOUNTAINS OF RUBBER

Snow-covered mounds of old auto tires at Fort Snelling, Minn., represent one of the nation's last and largest stockpiles of scrap rubber. This Rubber Reserve Co. store contains 5,000,000 tires collected in seven western states during 1942 salvage drives and

held until now for reprocessing. However, not all will be melted down; some can be repaired, retreaded, or resold. C. A. Neal, Louisville, tire dealer in charge of sorting the 60,000-ton stockpile, estimates 200,000 of the old "shoes" are in good—in view of a tightening supply of new tires (BW—Feb. 19 '44, p15).

Mar. 1844
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U. S. Navy Official Photo

Tribute to a Great Piece of Work



"Last year, your industry produced 277,525 tons of bronze, iron and steel valves... a remarkable picture of cooperation and production achievement." From an address to the Valve Manufacturers' Ass'n. by

Captain J. O. Gawne, U.S.N. (Retired)
 Director, Shipbuilding Division, WPB

What you see here is not just a picture of the world's mightiest man-o'-war, the 45,000-ton Missouri...

You also see a picture of what America's valve industry can do when it puts its heart into a job.

For the Missouri, with thousands of valves guarding its vast network of piping, typifies the achievements of this country's valve manufacturers in supplying our ships and war-plants with incredible quantities of this vital equipment.

Since Pearl Harbor, the valve industry has performed the miracle of expanding output seven and one-half times! It has done this without any comparable expansion of its facilities... and, equally important, without any sacrifice of quality.

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 don, England.



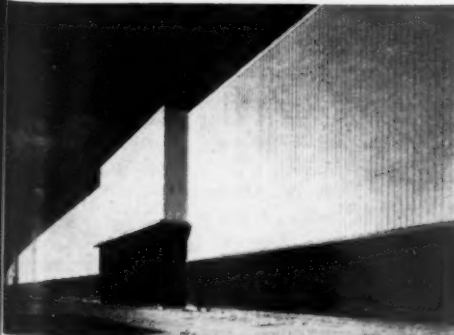
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the new U.S.S. Missouri, most formidable super-dreadnaught afloat. From the biggest battleship to the smallest escort craft, valves are helping our Navy win victory!



13,000 VALVES

were enlisted for war duty in building famed Liberators at the world's largest aircraft factory! This windowless or "controlled conditions" plant was designed by Austin for the Consolidated Vultee Aircraft Corp., Ft. Worth, Tex.



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A SPECIAL FRACTIONAL HP MOTOR
GOES TO WORK

SPECIAL MOTORS DESIGNED

TO FIT THE APPLICATION



Just as a bomber goes into the final bombing run, "Elmer", the automatic pilot, takes over the big ship and guides it straight and steady right on the target.

It's when "Elmer" takes over the controls that a special motor goes to work . . . driving "Elmer's" intricate mechanisms at a constant, dependable speed which assures precision, pin-point bombing from all altitudes at all temperatures. Providing power for automatic pilots is but one of the many applications for which Holtzer-Cabot specially designed fractional HP motors are used.

Today, the full capacity of Holtzer-Cabot facilities are being used in building fractional HP motors for military use. However, our motor development engineers are available for solving special fractional HP motor problems for contemplated peace-time products.

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program—Army, Navy, Maritime Commission, Aircraft Resources Control Office, Lend-Lease, Office of Economic Warfare, War Food Administration, and ODT.

Applications for tires to meet vehicle production schedules set up by these agencies have already been turned in by the truck makers. Their requests are being boiled down. The reduction of tire quantities is undoubtedly a factor in current cutbacks of truck schedules.

Trucks Cut Back

Army slashes its demands but shortage of heavy tires and parts darkens hope for increased production of civilian vehicles.

The 1944 truck program (BW-Jan. 29'44,p39) is being reduced under the remorseless pressure of bottleneck shortages—first in transmissions, axles, and bearings, now in tires. Under WPB ordering, the Army has cut its estimates of 1944 truck requirements by about 16% (742,433 vehicles down to 619,284).

• **Outlook Is Unfavorable**—When the Army cutbacks were first considered last winter, the objective was to enlarge the quotas for commercial vehicles. The Army's reductions, therefore, probably will be transferred to the schedule for civilian truck manufacturing.

But the likelihood of producing these commercial truck quotas is beginning to look darker and darker. The latest reason for pessimism is the shortage of heavy duty truck tires (page 24). With a maximum of only 3,500,000 original equipment truck tires in sight, the obvious maximum of vehicles in 1944 is below 900,000 units, none equipped with a spare tire. If the Army gets its reduced quota, only 280,716 vehicles would be built for commercial use in 1944.

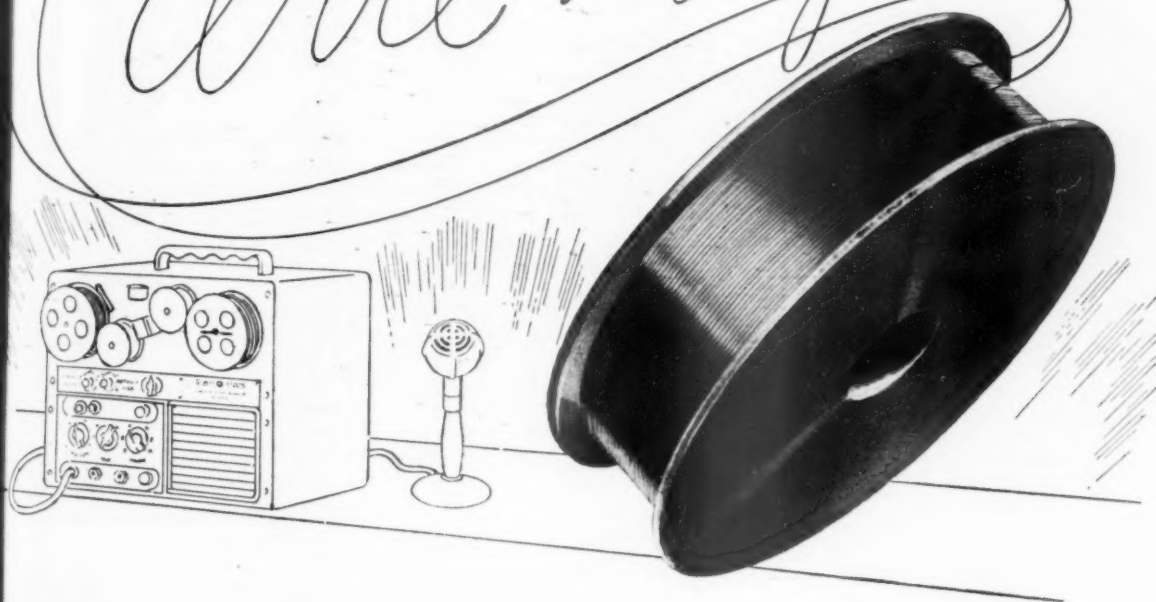
• **Army Cuts Small Vehicles**—The bulk of the Army cutbacks was in light military vehicles, of which the Truman committee reported 81,136 had been taken off the schedules. Of these a substantial proportion consisted of jeeps, produced by Willys-Overland and Ford. Dodge also received a good-sized cut.

Among medium and heavier vehicles, the most notable reduction was on half-trucks produced by White, Autocar, and Diamond T, whose schedules for some 27,000 units this year were shaved to around 3,000. In all, 42,013 medium weight jobs were cut off the schedules.

• **Basis of Allotments**—Allotments for the civilian truck production are now in the final stages of preparation at WPB.

They probably will be handed out, as the majority of the truck industry pre-

Wire Magic



THE time may not be far off when all of us can listen to music, dictate letters, record speeches, or even have complete telephone messages when the number does not answer—all on a tiny piece of wire. Right now, soldiers in Africa are listening to news and entertainment; aerial observers are recording details of test flights; war correspondents are describing battle scenes—on wire.

The means of this wire magic is a new device called a magnetic recorder. In its operation, a wire almost as small as a hair passes through the poles of an electromagnet. Even the slightest sounds or notes are recorded and can immediately

be "played back" through an amplifier and a loud speaker. The wire receives almost no wear; can be re-used over and over again by magnetically blotting out the recording.

Research men from the Armour Research Foundation and the General Electric Co. are perfecting the magnetic recorder for mass production and National-Standard engineers have worked with them in developing and producing wire that would fill their exacting requirements. Examples like this indicate the broad experience and skill which National-Standard can offer you in solving tough problems with wire.



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ferred, on an historical average basis. Individual company quotas will be proportioned from average 1936-40 output.

• **Shortage of Components**—Some commercial units already have been built, but the number is small.

In January about 3,000 trucks were earmarked for civilian use, but most of them came from a canceled lend-lease order. February's output was higher than the 1,000-odd commercial trucks made in January in addition to the diverted lend-lease trucks. Nevertheless, February production was farther below schedule, trade sources said, than was the January showing because of component shortages all along the line.

• **Problem of Prices**—Truck makers are also concerned with pricing problems on commercial trucks. OPA appears to be allowing price increases based on actual increases in labor and materials costs since civilian output was cut in 1942.

Three price decisions have been handed down thus far. Ford was given an increase of about 11% on one model. Reo was allowed to advance quotations a reported 10% to 20% on five different models. Chevrolet received the best break thus far in a recent decision, with price increases authorized on three models amounting to 20.7% to 23%. Other applications are pending.

Ray of Hope

ODT offers plan to supply replacement engines, axles, and transmissions for big trucks, but producers are skeptical.

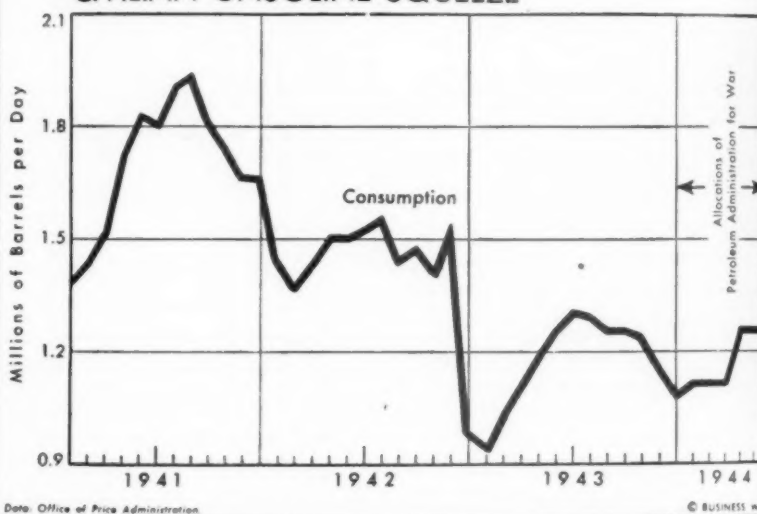
The Office of Defense Transportation has announced a new program to supply replacement engines, transmissions, and axles to truck fleet operators.

The plan calls for developing a "fleet" of 138,000 engines, 18,000 transmissions, and 7,000 rear axle assemblies. Materials to produce original quantities of new units are to be allocated. The units will be sold as replacements for worn sets, which in turn will be rebuilt and reshipped to replace still others.

• **One for 25**—Fleet owners operating 25 or more vehicles will be permitted to purchase one replacement unit for each group of 25 trucks in their fleets. Details of this program are being outlined to truck dealers, manufacturers, garage owners, fleet operators, and engine builders in district meetings which began in mid-March in Philadelphia and continue through Apr. 12 (at Atlanta).

Although the program has been of

CIVILIAN GASOLINE SQUEEZE



The gas squeeze on auto drivers has been even sharper than the figures show. Essential commercial and non-highway users, who now get over half the gas allotted to civilians, could not be cut nearly as much. Allocations to civilians have stabilized at about last year's levels, but gas use recently has outrun allotments, draining stocks. That's one reason why gas rations

again had to be tightened, especially in the West. And worse is to come despite the one-third cut from pre-Pearl Harbor days. Invasion operations may suddenly siphon off civilian gas, as happened little over a year ago when we went into North Africa. In general, oil output is steady, but military use is increasing, and that points to less and less driving for workers.

lined, no actual releases of materials have been issued by Washington. Truck producers say three months are required before production, under any but extraordinary conditions. Even if allotments were received at once, late June would be the earliest that shipments could be expected.

● **Producers Worry**—Beyond that, some producers are worried whether the program can be maintained. They contend that while engine rebuilding has been common, transmission and axle rebuilding from used parts is new; in the past worn units were repaired with new parts, or were discarded.

MOTOR VEHICLES SURVIVE

Despite shortages of gasoline, oil, rubber tires, and parts, there are 81% as many civilian autos, trucks, and buses in operation today as there were in the record year of 1939.

The annual world motor census compiled by the American Automobile (Overseas Edition) estimates the number of vehicles in service as 36,365,697 or about 19% fewer than its 1939 computation of 44,515,137. The bulk of them (32,677,797) is in the Western Hemisphere; 30,227,863 are in the U. S.

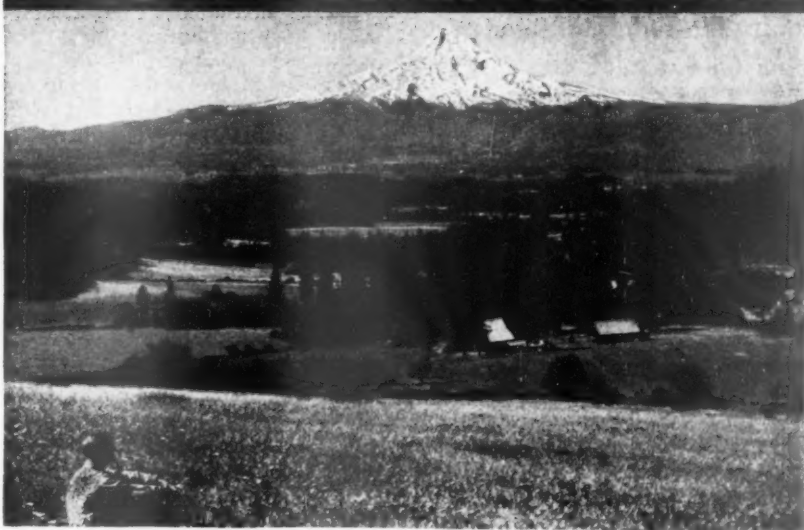
Inclusion of military vehicles would increase the total by some 3,000,000.



STICKY SEALER

Calking with oakum dipped in lead oxides or pitch is one of shipbuilding's messiest jobs. Now comes du Pont's Fairprene Tape, a special seam sealant, coated with adhesive which is activated by moistening with solvents (above). Supplied in various widths, the tape, which is impregnated with synthetic rubber, not only requires less time to apply but is reportedly impervious to most liquids, a prime requisite in building cargo tanks.

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MANUFACTURING? Oregon is a growing market at the gateway to the Orient. Unlimited natural resources, economical operation, all-ways transportation, and skilled labor, are essential factors playing a towering role in the expansion of Oregon's industrial future.

YES! The same, natural wealth working today for victory is Oregon's postwar plan for stabilized security after the war. Oregon stands ready, abundantly fruitful in the greatest wealth of all—natural wealth!

Oregon's treasure chest of resources provides the people of this state with permanent, growing incomes—one of the highest per capita earnings in the nation. For 93 years of Oregon's development history, The Oregonian has been a constant influence on the life and prosperity of this region.

The Oregonian

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Munitions Dean

His company's ammunition has seen service in three wars, but Olin remains the "mystery man" of East Alton, Ill.

Every war turns out a fresh crop of mystery men, and the munitions maker is traditionally the most mysterious. There is a sinister aura—a mantle of intrigue—about the legendary European munitions maker. He is pictured in cartoon and in print as a diabolical con- niver with foreign governments, so steeped in greed for money and power that he breeds wars.

● **A Letdown**—Against such a tradition, it is a letdown to examine the dean of American munitions makers and find him an energetic American business man, a man with that characteristically American genius for productive efficiency, whose overwhelming personal modesty is expressed in a profound aversion to publicity, at least preserving the air of mystery which the public expects of its munitions makers. That is the "mystery man" of East Alton, Ill.

Vermont-born Franklin W. Olin, now in his eighties, has watched the ammunition and guns flow to the battle- fronts in three wars; he has played no small part in developing and improving the weapons of the U. S. soldier. But he's little known outside his adopted Illinois home town. Even the people of East Alton know little about their lead- ing citizen.

● **Cutback Brings Layoffs**—The national spotlight has been focused on East Alton and Olin's Western Cartridge Co., where 2,600 workers have been laid off because of production curtailment in small arms, and on the company's subsidiary, U. S. Cartridge Co. at St. Louis, where 20,000 more are in process of being laid off.

Current and prospective layoffs at these plants are expected to total 38,000, and labor unions have appealed to Washington for more contracts for the area to prevent continued unemployment.

● **A Tough Assignment**—Olin is almost a stranger to the man who might be expected to know him best—the pub- lisher of the Alton Telegraph, Paul P. Cousley, who has been newspapering in Alton 50 years. When the Telegraph celebrated its 100th anniversary a few years ago, Cousley got a story about Olin—but the assignment was plenty tough.

Alton knows just enough about Franklin W. Olin to know that he is an individualist and that he has been

all his life. There are a few anecdotes that demonstrate this point.

● **An Inventive Slugger**—When he was playing baseball on the Cornell Uni- versity team back in the late 80's, Olin gave an early demonstration of the direct approach to a problem. The drop curve was an innovation then, so Olin, accord- ing to the legend, invented a curved bat which enabled him to hit the ball at its exact center. How he anticipated the pitcher's offerings, the legend does not explain. At any rate Olin, already a good pitcher and second baseman, made his reputation as a left-handed slugger—even of drop curves.

Alton residents tell of the time that the president of Western Cartridge abandoned the executive offices, donned overalls, and spent three months in his factory straightening out a produc- tion problem.

And it's common knowledge that Western Cartridge workers, particularly the old-timers, have a profound respect for his ability—both as an inventor and as a production man. They recall that three-month stay in the plant to over- come difficulties in the primer depart- ment.

● **Standard Raised**—Plant foremen blamed careless personnel for a trouble- some lack of uniformity in primers, and advised wholesale dismissal and transfer of employees. But the boss had a dif- ferent idea.

At that time, standards for the in-

dustry permitted one misfire in 500 car- tridges, but Olin was not satisfied. After he had supervised the operations three months, Western Cartridge's standard had been raised to one misfire in 10,000. One production run hit 120,000 before a misfire.

● **Out of Step**—But, despite his fami- liarity with the shop and his apparent close knowledge of the workman, Olin has not kept step with the march of labor unions. His views toward union- ization—of his own or of other employ- ees—epitomize rugged individualism in its purest definition.

Since 1933, when 250 Western Car- tridge employees were fired—for union activity, it was charged—the company has had a round of troubles with unions, the National Labor Relations Board, the National War Labor Board. It has traded blows with independent, C.I.O., and A.F.L. unions, and its labor rela- tions have been hardly less explosive than the munitions it manufactures.

The company has exhausted every legal resource by appealing to the fed- eral mediation boards and to the courts, but the trend of unionization has been inexorable.

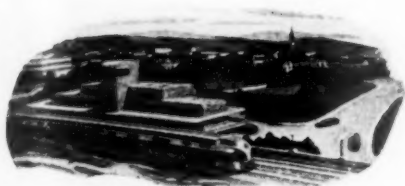
● **Avoids Publicity**—Throughout all the strikes and wrangling, Olin has remained aloof. He has proved beyond all doubt that he is one executive who is sincere when he says he wants to keep out of print. Genial and cordial, Olin is none- theless insistent in his desire to avoid



AERIAL SPY

Gaining in importance for reconnais- sance and artillery observation, auto- giros are being produced in ever greater quantities for the Army Air Forces. Newest model, the YO-60—made by Kellett Aircraft Corp., Philadelphia—has a bubble-type canopy, a cockpit

floor window, and a larger power unit. Adapted for flights over terrain having limited landing and takeoff area, the ships can be set down quickly, can fold their wings, and can be tucked away easily under camouflage. And their slow speed is an advantage aloft. Fast enemy fighters, used to fast tar- gets, generally overshoot.



TRAIN OF THOUGHT FOR THE FUTURE

Some day this war will be won by America and her Allies.

Our first duty meanwhile is to meet the demands of the war. This we are doing.

The going hasn't always been easy or comfortable. We believe you understand the reasons, and we appreciate your patience, your good-humored acceptance of inconvenience.

And we'd like you to know our ideas of comfort and style go far beyond what we're able to offer today. That's why we print the picture below.

It will give you some idea of how we'd like to serve you—how we're looking and planning ahead right now to make future railroad travel a thrillingly pleasant experience.

It can't be done all at once. It will take money and time.

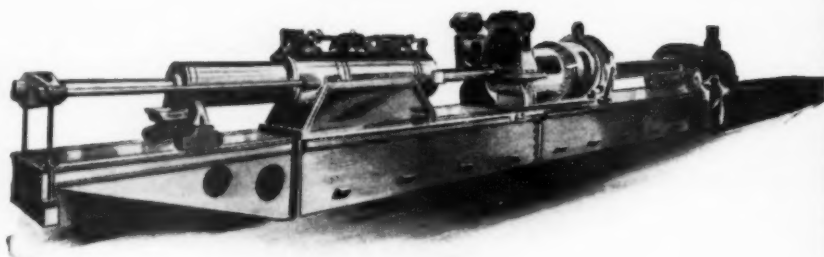
But you can be sure of one thing. Our goal is to give future America the finest transportation the world has ever seen.



ASSOCIATION OF
AMERICAN RAILROADS
ALL UNITED FOR VICTORY



WE'D LIKE TO WRING TOJO'S NECK ... THIS WAY

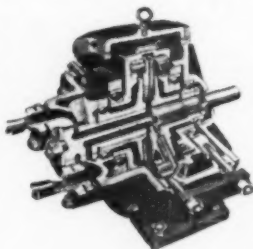


A typical application for HELE-SHAW FLUID POWER

YES, if we had our choice of means for wreaking vengeance on Tojo, this "Twister Stretcher" would get the call. It's a right handy "little" gadget (109 feet long) used for taking the kinks out of structural aluminum shapes and bars.

The operator slips in an I-beam, channel, or angle and with push-button ease exerts up to a 350-ton pull on the shape, twisting it at the same time to remove any distortion.

The stretching pressure is supplied by Hele-Shaw Fluid Power generated by a Hele-Shaw Pump. Smooth stretching action and ease of control characterize the operation. Hele-Shaw Fluid Power might be equally effective for a current or future application you have in the back of your mind... for stretching, squeezing, pushing, pulling, lifting, tilting, and a long list of similar operations. Would you like to find out?



OTHER A-E-CO PRODUCTS:
TAYLOR STOKERS, MARINE DECK
AUXILIARIES, LO-HED HOISTS

AMERICAN ENGINEERING COMPANY

2521 ARAMINGO AVENUE • PHILADELPHIA 25, PA.



Western Cartridge Co.'s president, Franklin W. Olin, is the sphinx of the American munitions business.

publicity. He is proud of the success his business has made—but he doesn't want any personal publicity. Reputedly a millionaire several times over, he lives a quiet life in an unpretentious house.

He goes his own way, just as he did back in 1892, when he first walked over the site of what was to become the Equitable Powder Co. plant at East Alton. Keeping his business to himself, he was able to build the plant, so the legend goes, and get it into operation before it was generally known to the community that it had acquired a powder manufacturer.

• **Started in Jersey**—Olin got his first experience in the powder business when a cousin offered him a job helping build a powder mill in New Jersey. The cousin quit the job, but Olin completed it and two other mills. He then looked toward Illinois, where the coal mines—requiring powder in their everyday work—were rapidly growing into a big industry. He decided that opportunity lay in the Midwest.

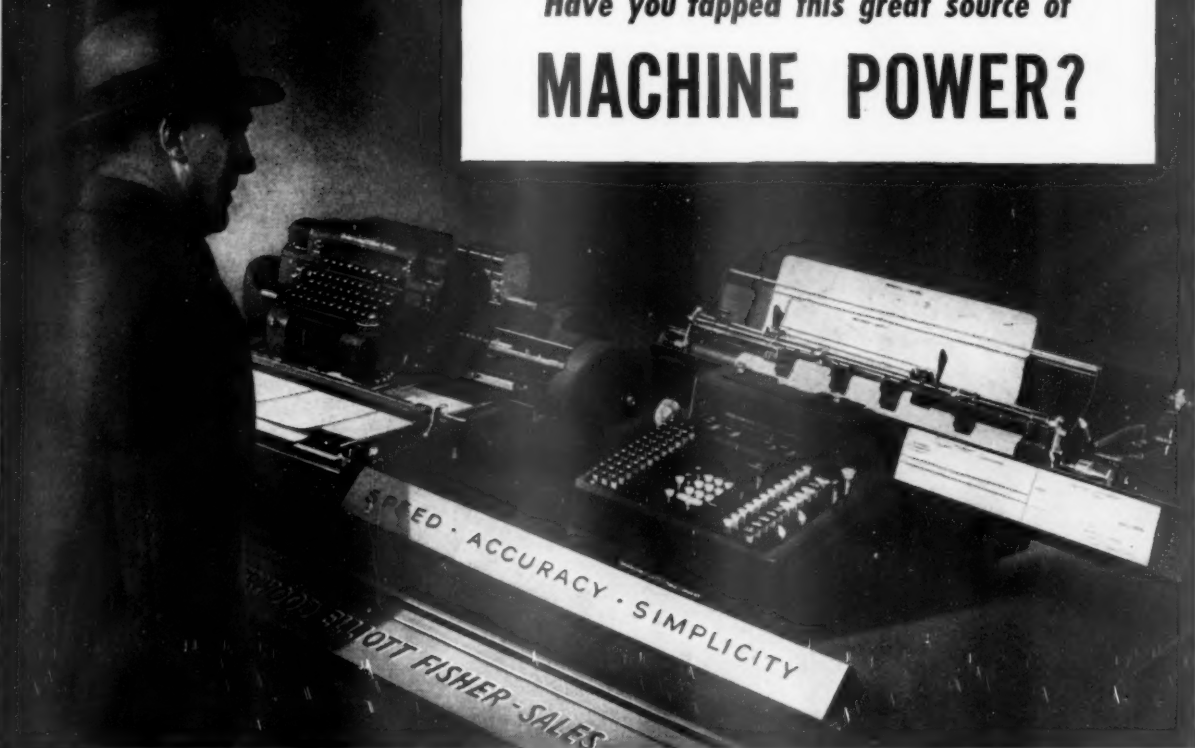
When the breech-loading shotgun was developed, Olin began to work on machinery to produce shotgun shells. After two years of research and planning, his powder company organized the Western Cartridge Co.

• **Made His Own Parts**—Then Olin ran into difficulties in getting parts for his machine, so he made them himself. When he hit the same problem in getting wads, shot, and primers, he added them to his manufacturing catalog.

During the booming World War years, Western Cartridge had contracts

Have you tapped this great source of

MACHINE POWER?



Machine Power Can Increase the Man Power and Woman Power in your Accounting Department

Increasing man power and woman power—per hour—is simply a matter of saving seconds in performing every accounting operation.

There are machines in the lines of the Underwood Elliott Fisher Company which can save those precious seconds for you on every one of your accounting operations.

Speed, simplicity and accuracy, and at the lowest possible cost, are the basic advantages which you gain through the use of Underwood, Elliott Fisher, and Sundstrand Accounting Machines.

In meeting any problem, Underwood Elliott Fisher representatives are not confined to inflexible methods; nor

are they restricted to the adaptations of only one type of equipment.

With a variety of models and features in each line, Underwood Elliott Fisher provides a *flexible choice*—unique in the accounting machine field—each model in day-to-day service in many thousands of organizations throughout the world.

Your forms may be large or small; printed on paper or card stock; prepared in original only, or with copies that are alike or different in size or shape.

Your records may require writing only, without computing; computing, with or without typed descriptions; addi-

tion, subtraction and individual totals of amounts entered in any number of columns from one to thirty, with or without simultaneous cross-computation of one, two or more balances.

Whatever your individual requirements may be, Underwood Elliott Fisher has both the method and the equipment with which to speed your production and lower your accounting costs—the *best* method and the *right* equipment.

A call to your local Underwood Elliott Fisher office will bring you, without obligation, interesting information on how Underwood Elliott Fisher *machine power* can materially increase the production of your present *man power* and *woman power*.

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Underwood Elliott Fisher Accounting Machines are available subject to War Production Board authorization.

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Underwood Elliott Fisher Company

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Our factory at Bridgeport, Connecticut, proudly flies the Army-Navy "E" awarded for the production of precision instruments calling for skill and craftsmanship of the highest order...



More than 60 years' experience has given DETEX the answer. We'll be glad to pass it on to you. This is just one of the PLUS VALUES you get when you install a

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If you are engaged in vital war work, investigate DETEX today.



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Depend on
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Adeco offers you a dependable source of supply with the know-how, experience and complete facilities for all types of close-tolerance production. It will pay you to include Adeco fabrication in your post-war plans.



AIRCRAFT & DIESEL EQUIPMENT CORPORATION
4401 North Ravenswood Ave., Chicago 40, Illinois

"Your Partners in Precision"

to produce munitions for a couple of dozen countries. Getting an adequate supply of brass was one of the chief problems. With characteristic directness, Olin built his own brass mill.

• **Now Fully Integrated**—Expansion of the company has been rapid. In 1931, Western Cartridge bought Winchester Repeating Arms Co., in receivership at the time. Thus, with its several plants

and subsidiary companies, Western Cartridge is fully integrated for the manufacture of small arms and ammunition, and during this war it has been a leader in war production.

Had it not been for the company's labor troubles, Olin probably would have achieved to a large degree his desire to keep out of the daily press. And whatever may be Olin's personal views

Tax Simplification Assumes Shape

To the 50,000,000 taxpayers who wrestled this year with the most complicated income tax form in U. S. history, the simplification formula which the Ways & Means Committee laid before the House this week was well timed.

• **Economic Springtime**—Only last week their struggles with the 1943 form had ended and the balance of tax due on 1943 income was paid. Ways & Means' proposal to exempt 30,000,000 of them from computing future returns and to streamline the process for the other 20,000,000 was the harbinger of an economic springtime.

Allowing for modification of detail as the measure labors through the legislative process, the program approved by the committee after two months' work (BW—Jan. 15 '44, p. 18) seems certain of adoption, at least in broad outline.

• **They're Exempted**—The 30,000,000 who would be relieved of future calculations are those earning up to \$5,000 whose income from sources not subject to the regular 20% withholding tax does not exceed \$100.

Their only obligation would be to mail to the collector of internal revenue the statement of income and withheld taxes customarily furnished by employers. Statement of other income and a list of dependents would be noted on the reverse side. The collector would compute the tax and either bill the taxpayer for any deficit or, in case of overpayment, send him a check.

• **New Short Form**—Another 10,000,000, it is estimated, comprise the group earning less than \$5,000, more than \$100 of it from sources not tapped by withholding. These would file returns on forms described by committee members as comparable with the present Form 1040A, the optional form for those reporting less than \$3,000.

For the remaining 10,000,000 taxpayers—those earning more than \$5,000—the committee promised a

form much simpler than the one which knotted their brows this year.

• **Victory Tax to Go**—Amendments to the existing law which the committee fashioned to achieve these ends would:

(1) Abolish the Victory tax and combine the present normal tax of 6% and the present surtax into a single surtax scale beginning at 20% on surtax net incomes below \$2,000.

(2) Levy a normal tax of 3% on all net incomes of more than \$500.

(3) Change the withholding system to make the amounts withheld equal to actual tax liability.

(4) Substitute surtax exemptions of \$500 a person for the present exemptions of \$500 for a single person, \$1,200 for a married couple, and \$350 for each dependent.

(5) Allow, at the option of the taxpayer, a flat 10% of income in lieu of itemized deductions for contributions, taxes, interest, etc., on incomes up to \$5,000. For greater incomes, the top flat deduction would be \$500.

• **Not Many Reductions**—Many taxpayers who expected that simplification would reduce their tax liability will be disappointed. Some actually will pay more. This is the result principally of the provision for a flat 10% in lieu of detailed deductions.

Few taxpayers spend 10% of income for the allowable deductions so that deduction of that amount would be a windfall to them. But the framers of the amendments foresaw that, too, and adjusted the tax rates upward to offset that loss of revenue.

• **New Estimates Due**—Inapplicable to payments on 1944 income, the proposed simplification program does not alter the obligation of taxpayers to file, by Apr. 15, their estimates of 1944 income and tax and to pay one-fourth of whatever amount will not be paid by withholding. In these computations, they will not be permitted to take the usual 10% deduction as an "earned income credit" against the normal tax or the deductions previously allowed for federal excise taxes.

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WHERE'S YOUR JOB WHEN WAR ENDS ?

Switching Production from Planes
to Dishpans—Getting Factories
Working Full-Blast Again
**REQUIRES *SPEED* THAT ONLY
TRUCK TRANSPORTATION OFFERS!**

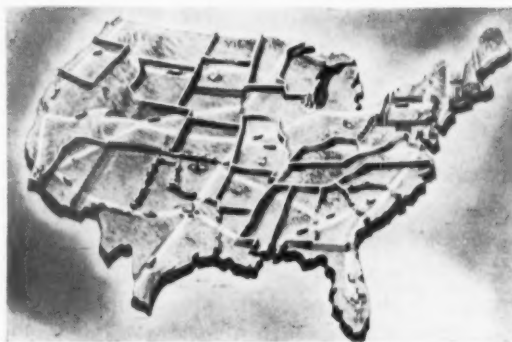


**AMERICA'S TRUCK LINES CAN CUT "CHANGE-OVER" DELAYS THE WAY
THEY SMASH PRODUCTION BOTTLENECKS ON WAR PLANES,
TANKS, GUNS, SHIPS—BY SLICING DELIVERY TIME IN HALF!**

Look mister: "Post-war" is TODAY, not tomorrow! Cancellations of war contracts are closing factories now. Sure, jobs are still easy to get . . . but when Victory clamps the lid down, what happens to you? Weeks of unemployment until industry reconverts to peace-time production?

No plant, even the biggest, is self-sufficient. For example, one company making bomber wings with 3621 parts must truck in 1530 parts from subcontractors. Industry needs the flexibility and delivery speed of trucks to get production up fast . . . and keep it at top efficiency.

As factories change over to radios, refrigerators, motor cars, and everything the public wants, fast truck transportation is vital.



HERE'S ONE MAP THAT STILL NEEDS CHANGING! These walls, before Pearl Harbor, were conflicting size, length, weight and tax laws that blocked off whole sections of U. S. highways. These laws, still on the books, must be revised. Also needed are better roads. Roads can provide vast employment. Special taxes on trucks exceed 1½ MILLION DOLLARS A DAY—help pay for post war roads now.

**But lay-offs may be needlessly prolonged unless
freedom of the highways is assured—quick!**

Bottle-necks must be cut to avoid unemployment. Motor transportation can do it, but restrictions on trucks . . . legislative restrictions as well as materials and manpower restrictions . . . must be lifted.

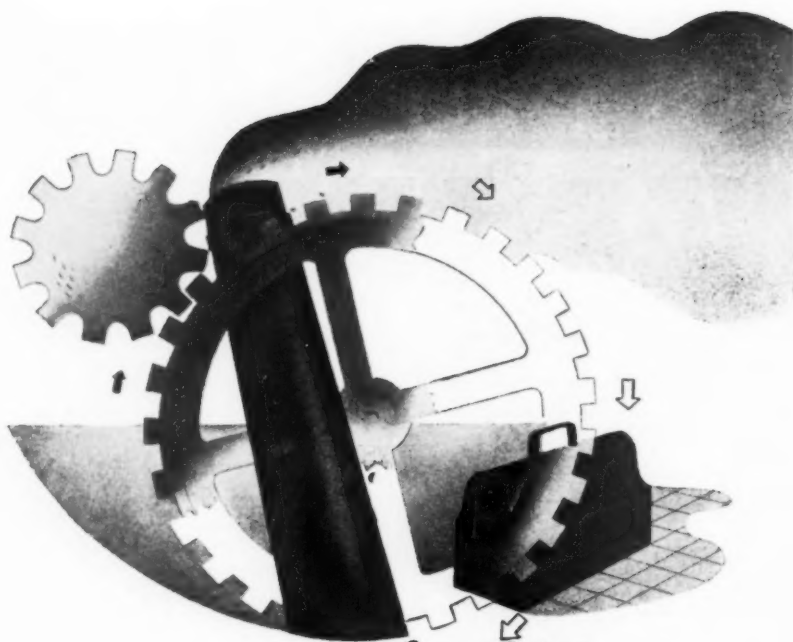
Efficient highway transportation and fast conversion to full peace-time production demands quick revision of petty regulations . . . a fair code of laws . . . and good roads. Let's assure these now!

THE AMERICAN TRUCKING INDUSTRY

AMERICAN TRUCKING ASSOCIATIONS, WASHINGTON, D. C.

AFTER THE WAR—fast, flexible truck transportation will cut your living costs—on everything you eat, wear, use. Even today, on top of rush shipments for War Plants, and armed forces, Trucks carry 62% of all meat, 42% of fruits and vegetables, 100% of milk for 34 large cities, most bread, butter, cream and eggs.

EVERY EXTRA MILE FREIGHT TRUCKS ROLL BRINGS VICTORY CLOSER



faster
production

to save lives today...save jobs tomorrow

Time saved in our war plants today marks the difference between life and death... hastens the day of victory and peace.

After the war, time saved still will be vitally important. For in postwar days production costs must be kept low to promote consumption—to provide jobs for all.

Here at Acme our staff of consulting engineers can help with your production problems—both today and after the war. You may need new dies...new patterns...heat-treated aluminum castings. You may need special tools which Acme can design and build. Ask for the recommendations of Acme engineers.

Send for new book. Acme's modern facilities for complete service to metal-working plants are profusely illustrated in our comprehensive new book, "Acme for Action." Sent upon request to interested executives.

ACME

Pattern and Tool Company, Inc.
DAYTON, OHIO

FOR VICTORY
BUY
WAR BONDS
AND STAMPS



HEAT-TREATED ALUMINUM CASTINGS...PATTERNS...TOOLS
TOOL DESIGNING...PRODUCTION PROCESSING

EIGHT STATES GET BULK

More than 50% of the new industrial facilities built or contracted for since the start of the national defense program are located in eight states.

According to a WPB summary covering the period from June, 1940, through the end of 1943, \$8,108,893,000 of plant structures, or 51.1% of the total contract value of \$15,880,134,000, landed in these states. Here is the list (figures in thousands of dollars):

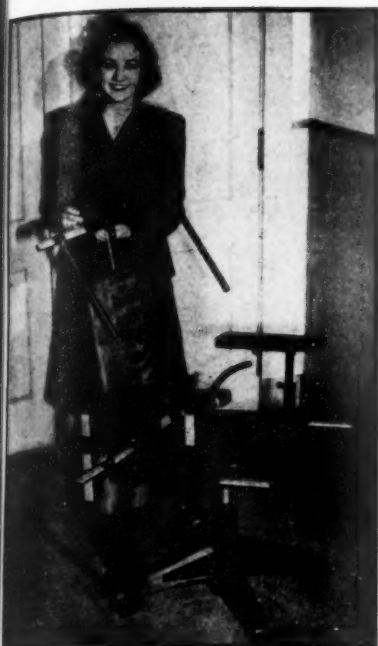
Pennsylvania	1,167,340
Ohio	1,157,035
Illinois	1,129,762
Michigan	1,080,020
New York	1,007,715
Texas	908,753
California	853,634
Indiana	804,634

Such concentration of industrial facilities in so few states is not unusual, however. Prewar state-by-state statistics on the size of industrial plant are not available, but 1939 data on value added by manufacture—a reliable indicator—show that the eight states in question accounted for 58.8% of the total for the country as a whole. And they weren't even the first eight, judged by this criterion. Indiana ranked only ninth, and Texas fourteenth, being replaced in the list by New Jersey and Massachusetts. The actual first eight accounted for 64% of the nation's total value added by manufacture.

toward unions, the management is officially represented now by his two sons, John M. and Spencer T. Olin is not permitting resentment over past differences to tincture its attitude toward labor. This was indicated recently when the company adopted a comprehensive pension plan for its employees.

● **A Generous Program**—An important point is the fact that the company will bear the entire cost of the plan, which will provide retirement annuities at the age of 65 for all hourly paid factory workers, as well as all office and salaried employees. Other provisions are liberal, too.

But Franklin W. Olin doesn't like to talk about labor. He is allergic to the quoted word, and his allergy extends to discussion of every phase of his business and personal life. But he will admit that if he had his life to live over, he would stick to a profession as a consultant and let someone else take over the worries of management.



NOT FOR TORTURE

To make the postwar railroad coach more comfortable, scientists are getting a line on the American sitter—with a grim-looking chair. Measuring devices on the test seat will determine an average hip breadth, back height, and shoulder width so that coach seats can be made more form-fitting. Harvard's anthropologist, Dr. Ernest A. Hooton, is gathering this data at Boston's North station for the Boston & Maine R. R. by inviting 3,000 passengers to sit and be measured.

Savings Pile Up

U. S. residents put away nearly 38 billions for a rainy day, in addition to paying off \$900,000,000 indebtedness.

The liquid savings of U. S. residents during 1943 reached the all-time record of \$37,700,000,000, according to a compilation just released by the Securities & Exchange Commission.

• **For a Rainy Day**—There was little disposition last year to curtail spending on goods and services, and income, even after taxes, was so high that the nation's citizens, as a whole, were able to set aside for a rainy day almost 30¢ of each dollar of their 1943 "disposal" income.

Savings were accounted for mainly,



"HOW DOES MUEHLHAUSEN MAKE THOSE SUPER-SIZE SPRINGS?"

Well—it's this way. Those big babies must be coiled hot, to extremely close tolerances... and produced in quantity at P-38 speed. It's specialized work that demands very specialized equipment. So—Muehlhausen has one huge plant totally devoted to hot-forming. It is all conveyorized. Production is governed by a central laboratory. The quenching tanks are the size of swimming pools, and skyscraper-like shot blasters give springs clean, lustrous finish and added life.



Automatic tapering of bar ends prior to coiling



Precision hot-coiling springs on automatic equipment



Precision grinding squares both spring ends at once



Shipping finished springs in carload lots

To really appreciate how your production schedule and product can benefit by these extensive facilities, call Muehlhausen in on your next spring job. Write today for our new booklet on hot-coiling springs. MUEHLHAUSEN SPRING CORPORATION (Division of Standard Steel Spring Company), 775 Michigan Avenue, Logansport, Indiana.

To improve product performance, use

MUEHLHAUSEN Designed SPRINGS



Packaged cranes

IN this case are the makings of a new Jib Crane. With an I-beam bought locally you have all the materials.

There are other Crane Assemblies available for building Top Running and Underhung Bridge Cranes up to 6-ton capacities. Everything is included in the one package except an I-beam and a shaft.

With a wrench and an hour's time any competent workman can build each type of crane. There is no machine work to do—not a single hole to drill.

Because the heavy parts of the crane—I-beam or beam and shaft—are procured locally, transportation costs on completed Cranes are much less.

On the proper priority, we can usually make prompt shipment and your new crane can be operating the day you receive it. For immediate use and for later civilian production look into this new, revolutionary method of acquiring cranes at low cost.

Write for Bulletin 355 which contains full information of this quick, economical way to acquire jib or bridge cranes.



'BUDGIT'
Crane Assemblies
MANNING, MAXWELL & MOORE, INC.
MUSKEGON 5, MICHIGAN

Builders of 'Shaw-Box' Cranes, 'Budgit' and 'Load Lifter' Hoists and other lifting specialties. Makers of Ashcroft Gauges, Hancock Valves, Consolidated Safety and Relief Valves and 'American' Industrial Instruments.

reports the commission, by increases of \$13,800,000,000 in private holdings of U. S. government bonds and of \$15,800,000,000 in individuals' holdings of currency and bank deposits.

• **Other Savings**—However, \$3,800,000,000 was also added to their equity in government insurance, \$3,100,000,000 to private (mostly life) insurance equity, and \$600,000,000 to their total investment in savings and loan associations.

And all this was accomplished, despite the retirement out of last year's earnings of \$800,000,000 of consumer indebtedness, not including repayment of \$100,000,000 of mortgage obligations.

• **Liquidation Drops**—Of particular significance to SEC was the fact that most of the retirement in consumer debt last year took place in the first quarter, and that the year's grand total of such liquidation fell far behind the similar reduction of \$2,800,000,000 that was made in 1942.

This factor, SEC reports, reflects the disappearance, because of earlier repayments, of the great bulk of instalment debt previously incurred for automobiles and other consumers' durable goods and thus forecasts that only a negligible amount of savings will be taken care of in this form during 1944.

• **High Level**—Savings of American individuals as a whole in 1943, as compiled by the commission, not only reached a level 28% above 1942, but also were equal to well over 2½ times the total of such savings in 1940 and 1941 combined.

Thrift Attacked

Nathan warns that too much savings after the war can be detrimental to full employment, though it may be vital now.

Whereas saving now is vital to pay for the war, it can be the arch enemy of postwar full employment, according to Robert R. Nathan, former chief of the War Production Board's planning committee, in his "Mobilizing for Abundance," just published by Whittlesey House (\$2.00).

• **Save Too Much**—In popularizing both the widely accepted line of analysis and the much disputed array of conclusions first propounded by John Maynard Keynes in England and developed by the latter's New Deal follower, Prof. Alvin H. Hansen, Nathan not only attributes depression to imbalance between saving and investment, but also insists that we save too much.

Thus, we suffered in the thirties because in the twenties we expanded production faster than consumption. One outran the other, until investment in new plant slowed down, failing to balance savings and plunging us into depression.

• **Would Lower Taxes**—Nathan's recipe for full employment differs, therefore, from that of his more conservative colleagues. He advocates lowering bus-



HOMES EN ROUTE

Lined in neat rows aboard a massed convoy of barges, 30 housing units make up one of the oddest and bulkiest cargoes ever shipped on the Ohio River. Three more identical shipments will complete the job of transferring 120 houses more than 400 miles from

Point Pleasant, W. Va., to Camp Breckinridge, Ky., where they will accommodate civilian workers. This move will cost the National Housing Agency about \$350,000, including costs of trucking the units, complete with stoves and refrigerators, six miles to the camp. The homes will occupy a 15-acre site at Breckinridge.

Partial view of the great butadiene and styrene plant at Kobuta, Pa., built for the Defense Plant Corporation by Koppers Company and operated for the Rubber Reserve Corporation by Koppers United Company. Vast quantities of CAREY Heat Insulation were installed in this unit.

"One of the finest examples of exterior heat insulation work"
... PROMINENT CONSULTING ENGINEER

Carey HEAT INSULATION

Installed "**ON SCHEDULE**" at Giant **KOBUTA** Synthetic Rubber Plant

Supplying and installing mile upon mile of efficient Heat Insulation for the great butadiene and styrene plant at Kobuta was a BIG job, over \$1,000,000 . . . but not too big for CAREY SERVICE!

CAREY'S large production facilities, nationwide distribution service, and specially-trained engineers and erection crews of the Carey Contract Organization—ALL combined to provide ade-

quate Heat Insulation for this immense project, with record-breaking speed and efficiency.

Whatever your insulation problem, remember—you can ALWAYS depend on CAREY SERVICE for high quality materials, expert and speedy installation, and utmost economy. For information on the complete line of CAREY Heat Insulations, write Dept. 29

Conserve fuel...Increase Power...END THE WAR FASTER!

THE PHILIP CAREY MFG. COMPANY—Lockland, Cincinnati 15, Ohio

Dependable Products Since 1873

In Canada: The Philip Carey Co., Ltd. Office and Factory: Lennoxville, P. Q.



"It's a Weapon—Soldier"

"Yes, that runt of a shovel is a *weapon* . . . and after it's saved your life a time or two, you'll have a healthy respect for it.

"There are tricks to using it, too . . . tricks you'll learn by watching *movies* of guys scooping out foxholes and slit trenches in the side of a nameless hill in Italy.

"That movie . . . and reel on reel of others . . . will *train* you to pick the best place for a foxhole . . . when to dive into it . . . how to fight from it . . . how to use every shrub and rock and tree and hillock for cover and concealment."

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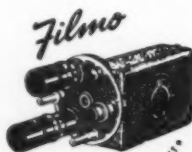
. . . and, your *home* movies will have to wait.

Bell & Howell Company, Chicago; New York; Hollywood; Washington, D. C.; London. Est. 1907.



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Bell & Howell

ness taxes to improve incentives investment, stronger control of money to spur enterprise, and American lending abroad to increase exports.

But even so, he contends, we must reduce savings: by taxing idle savings, breaking the savings habit with social security, and by taxing heavily larger incomes which produce the large savings.

And even this may not do. If we must supplement private investment with government spending to offset savings.

• **Indirect Approach**—Nathan's approach is indirect. He shies away from direct government controls of business. "The democratic, free enterprise system is the most desirable one. But," he adds, "it will continue to exist only if it works well."

To Nathan, failure is the worst threat to freedom. And depression is the worst loss to the nation and to all citizens—workers and business alike. His passionate faith—that it can solve the basic economic problem under the enterprise system—is no doubt what explains this economic venture into the role of publicist.

Denim Mill Saved

OPA grants price increase to thwart bankruptcy auctioneer. But the government is buying all the plant's yardage.

WPB and OPA won out last week in a struggle with the laws of supply and demand, in which they managed to save the output of a marginal producer of a sorely needed textile—denim. Now they have to find a buyer for the denim.

• **Back in the Red**—The marginal producer is Samoset Cotton Mills of Talladega, Ala. Before the war, Samoset was running into the red. In 1941 and 1942—boom years for the textile industry—it made money. In 1943, rising costs caught up with profits, and the mill went back into the red. Last October an involuntary bankruptcy petition was filed by its creditors. From Oct. 1 to Dec. 31, 1943, Samoset showed an operating loss of \$27,461.

A shift of output to a more profitable textile than denim was out (even if it had been practicable) because—like a denim mill—Samoset operates under WPB production directive which requires it to turn out a stated yardage of denim monthly.

• **Unwilling to Close**—Last month, the mill's trustee, Edward Vaughn, was ordered by the court's referee in bankruptcy to shut down. Vaughn was torn

between the desire to keep one of Tal-ladega's most important enterprises on its feet (a textile mill means a good deal to a town with a population of 7,500) and the fact which weighed heavily with the referee—that there probably will never be a better time than right now to dispose of second-hand textile plant and machinery. Vaughn took his troubles to Washington.

Unwilling to lose Samoset's denim production (in the last quarter of 1943, the mill accounted for 4% of total U. S. denim yardage), WPB appealed to OPA to give the company a better price ceiling. OPA used its powers under the Vinson directive (which allows the agency to increase prices to stimulate production of scarce, low-end textiles) to give Samoset a ceiling of 23½¢ a yard. This contrasts with a ceiling of 19½¢ for the rest of the industry.

• **Denim Users Rebelled**—Work clothing manufacturers and other denim users took one look at Samoset's new ceiling and said flatly that they couldn't make money under their ceilings and pay a price like that. So—with the court's order still hanging over them—WPB and OPA had to find a taker.

Defense Supplies Corp. was persuaded to step into the breach. The problem now is to find somebody to take the denim off DSC's hands.

• **Subsidy Shunned**—The ideal situation—from the agencies' point of view—would be to have DSC resell the denim at the industry ceiling of 19½¢ and absorb the loss. But this would be a subsidy, and with the issue of food subsidies now boiling in Congress, OPA doesn't want to throw fat on the fire by getting involved in textile subsidies as well.

WPB's Textile Division is officially mum on what it expects to do with the denim it has gone to such pains to save. Best bet at present is that the Foreign Economic Administration will buy it from DSC. FEA, which has had to defer to U. S. civilian needs and pare down its demands for large quantities of low-end textiles, presumably won't be too finicky about price if it can get a little denim.

• **A Duration Arrangement**—If Samoset remains in business, it looks as though it will have to be under the present complicated arrangement for the duration of the war.

OPA was getting ready this week to grant the entire denim industry a uniform price increase under the weighted formula used recently for sheeting (BW—Feb. 26 '44, p. 84), but the increase would be too small to take care of Samoset.

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Fashion Warfare

Los Angeles boosts fund to sell city as the style capital of the world. A.A.M. chief quits in battle over scope of drive.

Following a tumultuous reorganization, in which Sol Baum, long a dominant figure in the West Coast clothing industry, resigned as chairman of the postwar fund drive, the Associated Apparel Manufacturers of Los Angeles, Ltd., has begun raising another fund (BW-Sep.14.40,p42) to sell Los Angeles as the logical successor to Paris as the style center of the world.

• **War Chest Increased**—The title of world fashion capital is also sought by Chicago, St. Louis, Kansas City, Minneapolis-St. Paul, New Orleans, Miami, Boston, Dallas, San Francisco, Hollywood, and New York, which is discussing an \$88,000,000 style center (BW-Jan.29.44,p19).

Los Angeles has been promoting its \$110,000,000 apparel industry with a fund of about \$40,000 a year, chiefly by advertising its slogan: "Authentically Made in California."

This year, the Los Angeles manufacturers decided to dump another promotion budget, several times bigger, on top of the \$40,000. The separate, expanded budget was to go for postwar promotion, and manufacturers were asked to pledge a sum equal to 0.01% or more of their business volume annually for three years.

• **\$75,000 Pledged**—There was a series of impassioned meetings, when it was sought to include other apparel associations among the needle trades in an expanded A.A.M. After the smoke cleared away and Baum had resigned, the campaign was reorganized.

Now the cooperation of allied manufacturers—shoes, millinery, undergarments, buttons, accessories, textiles, etc.—is still being sought, but on a house-to-house basis. Within a week after the formal launching of the campaign, there was \$75,000 in the promotion fund.

• **Eight-Point Program**—One-third of the fund probably will be put into a postwar emergency fund, the balance to be used for:

(1) Trade advertising to sell California as the No. 1 "creative market" in the U. S., and to offset trade advertising by markets elsewhere.

(2) National advertising in consumers' magazines to make women buyers more "Made in California" conscious.

(3) Carrying a similar message to the nation's stores.

(4) Research into manufacturing and merchandising problems.

(5) Formation of a craft school as a source of skilled help.

(6) Establishment of a California fashion mart.

(7) Convenience headquarters for out-of-town buyers.

(8) Inauguration of a fashion style institute.

• **Will Name Director**—At this stage, the postwar fund has more money than

personnel. It is planned to appoint a promotion manager and establish an agency in addition to that now handling the label promotion.

The new lines of attack have not yet included an invitation to the garment workers union to take a hand in the promotion, but have led to a big enlargement of the promotion fund and the advertising account.

There's More for Civilians

The Office of War Information did a neat job of tightrope walking this week. In a nine-page press release, OWI managed to let the man in the street know that help is on the way in the form of more and better civilian goods, but at the same time it dampened civilian hopes for any widespread reversion to peacetime production while the war is in its present phase.

• **More and Better Goods**—OWI's summary of the current status of civilian production bears out the prediction (BW-Dec.25.43,p17) that there will be a substantial increase in supplies of small durable goods and that, with an easier metals supply, the quality of goods already in production will be improved.

Here is the consumer goods picture, as OWI sees it:

Electric irons—Production for civilian use is expected to get under way in May, but irons will not be available in any quantity until about four months later. They will not be rationed.

Ice refrigerators—The scheduled production rate recently has been increased so that output is five times the prewar rate. The object is to compensate civilians for the dearth of mechanical refrigerators.

Electric ranges—Civilians will share with the Federal Housing Administration a supply of 68,000 ranges. The first ranges probably will not be available before September. Ranges will be informally rationed.

Cooking utensils—Manufacture of cast iron cooking ware at prewar levels is now permitted, though actual production may fall short. WPB has allowed an increase in the output of enameled cold-pack canners and has removed restrictions on the manufacture of enameled drip coffee makers and teakettles. Production of 400,000 aluminum pressure canners has been permitted in time for this year's Victory garden pack. The canners will not be rationed.

Galvanized ware—Production of pails, buckets, wash tubs, etc., has been stepped up.

Baby carriages—Construction has been shifted from wood to steel, and models of prewar quality are now on the market.

Work clothes—In spite of WPB's and OPA's efforts, there is little prospect that production can be stepped up sufficiently to relieve the shortage soon.

Elastic yarn and girdles—Limitations on the use of elastic yarn in corsets, girdles, etc., were lifted in December. But Neoprene, the industry's first choice among synthetic rubbers, has been taken by the military, and manufacturers are beginning all over again with GR-S.

Silver-plated flatware—Production in 1944 will be 25% over 1943. Quality will be improved through a nickel-plated undercoating.

Alarm clocks—Steel probably will replace fiberboard soon in alarm clock cases, and brass will replace steel works. There is little prospect of a large increase in production.

Auto batteries—Civilians probably will get more batteries this year than last.

Dry cell batteries—The prospect for these is no better than in 1943.

Razor blades—Production has been stepped up and is now almost unlimited.

Radio tubes—The total quantity available will not be sufficient to meet demands, but production will be channeled into the types most needed. The present shortage will be materially improved.

Bedsprings and inner-spring mattresses—Manufacturers have been permitted to increase bedspring production 25%. Quality has been improved through an increase in the weight of steel used in coil units. Production of inner-spring mattresses continues to be prohibited.

Wood upholstered furniture—Steel springs are now permitted in wood upholstered furniture, with no limitation on the amount that a manufacturer may use in any individual piece.

Umbrellas—Production of umbrellas has been increased slightly. Production of repair parts has been doubled.

Shoe eyelets—Brass may now be used instead of steel.

Closures—Hooks and eyes, snap fasteners, and brassiere hooks may now be made of steel. The ban on production of slide fasteners over 27 in. long has been lifted. Steel may now be used for buckles for shoes and clothing.

Baby rattles, teething rings—These may now be made from nitrocellulose plastics.

Jewelry—Jewelers may now use 50% more gold and palladium than in 1943.

Idle Tools Listed

WPB launches new check of machines not in use to permit fuller utilization by exchanges between war plants.

The War Production Board has embarked on a program for fuller utilization of government-owned machine tools. A policy meeting at Detroit last week arrived at details under which efforts will be made to provide work for idle equipment or to transfer it to plants where it can be used.

• **New Report Asked**—At the same time, WPB mailed a new form (No. 3475) on which monthly reports on idle machine tools will be made starting Apr. 1. Forms are to be returned to the regional WPB office having jurisdiction, and information will be consolidated into master lists.

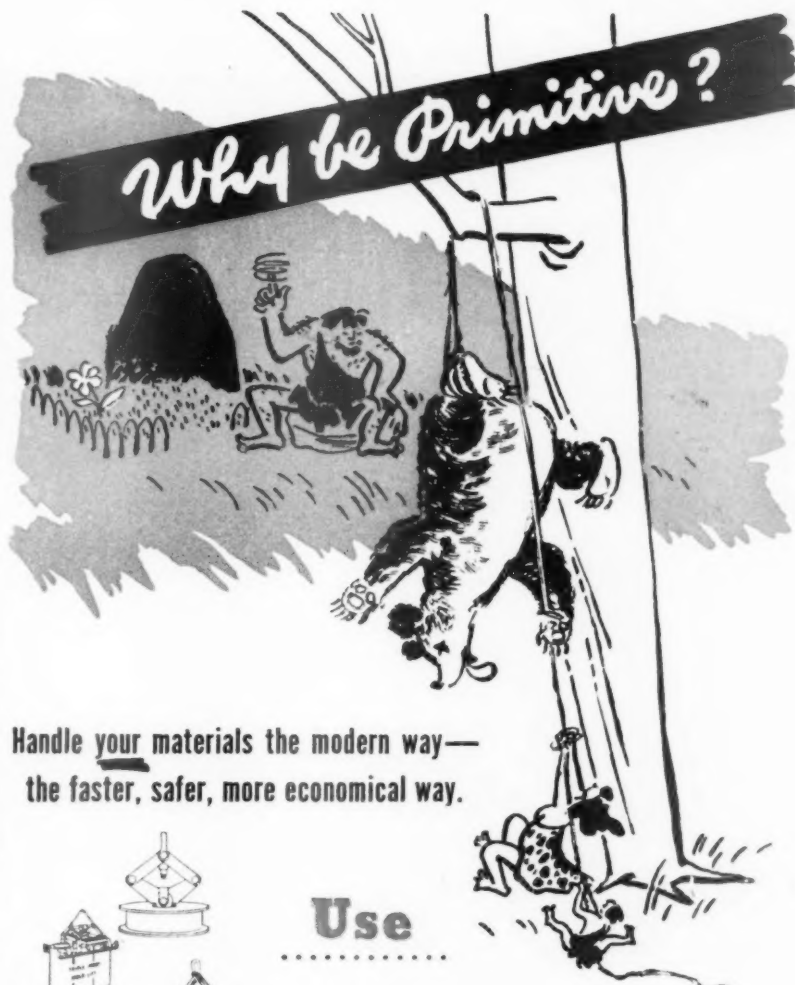
Any government-owned machine tool worth \$500 or more, not working and not scheduled for work on war contracts for 30 days, is considered idle for purposes of the listings. Even if the machine is being used on civilian or farm goods, it is idle within this definition.

• **No Grab**—Tool division officials said they do not intend to go on a grabbing spree. Primarily, they seek a clear picture of tool availability, a necessary prelude to efforts to fit new contracts to the idle machinery. Equipment held for standby purposes is protected by the fact that it cannot be removed from its plant without consent of the governing military agency.

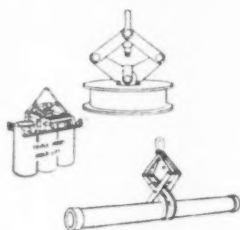
Possibility was seen that this program might be the means of starting up a flow of tools among the services. Up to now, industrial sources say, there has been comparatively little liaison among the various governmental branches, no practical arrangement for transfer of facilities from idle plants of one branch to expanding facilities of another.

• **Large Stores Held?**—Ordnance is believed to have large stores of machine tools in plants shut down after completion of various phases of the tank and ammunition programs. The largest tool-buying facility in the past few months has been the Army Air Forces, still expanding its requirements. Whether interchange of information provided by WPB's new plan will come in time to help the aircraft program remains to be seen, for much of the Air Forces' requirements already has been met.

Other significance is read into the WPB plan. By maintaining up-to-date lists of idle machine tools, a working base is established for the handling of these pieces at the end of the war.



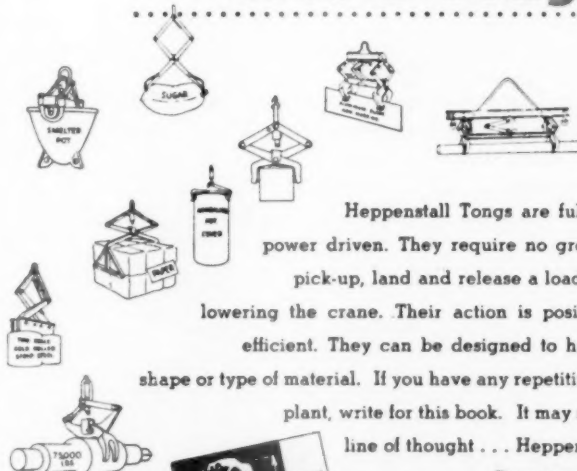
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Terminal Grows

Chicago's rail-to-water coal dock is expected to handle 2,500,000 tons in 1944, more than double the traffic of 1943.

Coal traffic over the Great Lakes through Chicago's rail-to-water terminal (BW—Aug. 22 '42, p. 24) is expected to approach 2,500,000 tons during the 1944 navigation season, which is already getting underway, almost a month ahead of schedule. Interior Secretary Harold L. Ickes announced last week that pre-season permits covering rail movement of certain grades of coal to lower Lake ports had already been issued.

• **1,066,599 Tons in 1943**—The terminal, designed for dumping coal cars and loading steamers, got started too late to handle any considerable tonnage in 1942. Total up-Lakes shipment of southern Illinois and western Kentucky coal was only 182,400 tons that year, most of it loaded haltingly with crawler-crane clamshells.

In 1943 this business reached 1,066,



DRUG INCUBATOR

Newly designed glass "houses" for the mold cultures that produce germ-killing penicillin (BW—Jun. 5 '43, p. 52) come off production lines of the Owens-Illinois Glass Co., Toledo, Ohio. In pharmaceutical laboratories, these odd-shaped bottles serve as incubators for the mold—replacing half-gallon milk bottles formerly used. In reaching quantity production, however, some penicillin makers are replacing bottles with bulk culture tanks.

599 tons. Practically all of it went to Ft. William, Ont., for the Canadian Pacific Railroad, displacing fuel previously produced in western Canada or purchased in the East.

• **Displaces Eastern Coal**—The C.P.R. has already ordered 1,405,000 tons for transshipment at Chicago this summer: 605,000 tons from southern Illinois; 250,000 tons from the Belleville, Ill., district; and 550,000 tons from western Kentucky. Coal men are guessing that the C.P.R. will order much more coal from Illinois and western Kentucky fields, if it can get it.

Other potential up-Lakes cargoes of western coal include: between 300,000 and 500,000 tons for which the Canadian National has been shopping; about 200,000 tons for which the Chicago & Northwestern is reported dickering, for water shipment to Green Bay and Superior, Wis., where the road has previously used eastern coal.

• **Terminal Improved**—Current indications are that the Solid Fuel Administration apportionment orders, expected soon after Mar. 1, will send 1,500,000 tons of coal through Chicago for Lake Michigan area consumers.

The Burlington and the Illinois Central were instrumental in establishing in 1941 the long-sought proportional rail rates from the mines for transshipment at Chicago. These lines handle most of this coal and are counting on a volume of between 2,000,000 and 2,500,000 tons in 1944.

The terminal company is improving its dock with a new facing to permit the more rapid shifting of vessels and is counting on being able to dump and load 3,000,000 tons this year.

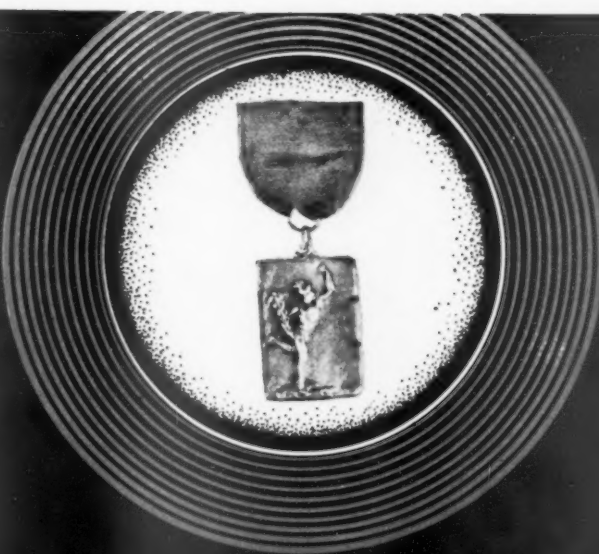
Capacity of the coal loader is figured at 1,250 tons per hour, but experience indicates that a mechanized dock must make allowances for time out of service.

Sugar Beet Goal

Higher support price and other inducements may result in planting of 900,000 acres this year. Basic wage rate is set.

Inducements held out to farmers to grow sugar beets are more attractive this year, reflecting plans of the War Food Administration for the U. S. to grow more of its own sugar to relieve wartime pressure (BW—Mar. 18'44, p7).

• **May Reach Goal**—It now seems likely that WFA's goal of 900,000 acres of beets (compared with 600,000 harvested in 1943) may be reached. Planting of 900,000 acres in 1944 would mean, at normal rates of yield, about



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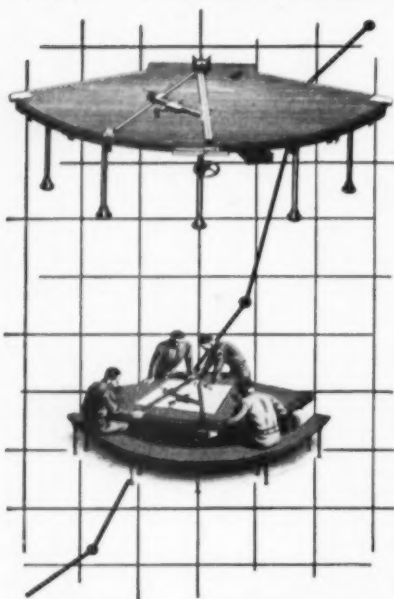
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HAMILTON PAPERS



1,750,000 tons of sugar from the beet fields.

The Dept. of Agriculture, which annually sets beet field wages, recently announced that 1943's rates would be retained as a minimum for 1944, with farmers and laborers free to negotiate, by regions or individually, for higher rates.

• **Lost Advantage**—This is regarded as a break for farmers. In 1943, they got a support price of approximately \$11 a ton of beets of average sugar content, compared with about \$9.50 in 1942—but 1943 wage hikes meant that they had to split from one-third to one-half of the price increase with field workers. The 1944 support price is approximately \$12.50 a ton—and it depends on the bargaining powers of the farmer and the supply of labor, whether he has to pay higher wages than in 1943.

• **Earlier Agreements**—What pleases the industry most is that virtually all production agreements are being settled earlier than in 1943, when governmental tardiness was blamed for the short crop.

Acreage goals by states, basic wage rates, and Commodity Credit Corp. support prices all are settled; negotiations with Mexico for labor are well under way. Perhaps best of all from the industry's standpoint, support prices for competitive crops—potatoes, dry beans, etc.—which in 1943 lured many farmers away from beets, continue approximately unchanged in 1944, contrasted with the \$1.50-a-ton hike in beet prices.

As in 1943, the government will pay the farmer for beets, then sell them to processors at approximately \$9.50 a ton, to keep retail sugar prices down.

Gamble in Nuts

Spoilage deadline near, speculators in coconuts attempt to unload now and escape the fate of Christmas tree handlers.

Those coconuts you've been seeing in big brown piles in so many grocery stores are there because somebody gambled as other speculators did when they tried to make a killing in Christmas trees. Nuts not being as perishable as cut trees, the coconut speculators could wait for the payoff. But now, nature is calling their hand.

• **A Smart Venture**—When Thanksgiving and Christmas holidays were in the offing, dealers reasoned that fresh coconut, because it was under no OPA price ceilings, would be a smart venture.

Husked nuts were selling for about 10¢ each, but prices rose steadily until they hit 40¢, even though more and more nuts were coming in from the Caribbean islands—mainly Puerto Rico and Jamaica.

• **Spiral in Reverse**—The higher prices to consumers worked backwards. Wholesalers tried for bigger profits, importers raised their prices, shippers upped freight rates on the boats (600 tons or bigger) controlled by the Caribbean conference of ship owners as well as on the small craft that were free to charge what they liked. Soon the word got back to the plantations, and another profit was added to the load when the growers increased their share.

Result was a lot of coconuts in U. S. warehouses that were too expensive to

What's Happening to the Cost of Living

	Food	Clothing	Rent	Fuel, Ice, & Electricity	House Furnishings	Misc.	Total Cost of Living
August, 1939	93.5	100.3	104.3	97.5	100.6	100.4	98.6
January, 1941*	97.8	100.7	105.0	100.8	100.1	101.9	100.8
February	97.9	100.4	105.1	100.6	100.4	101.9	100.8
February, 1942	116.8	119.0	108.6	104.4	119.7	109.4	112.9
February, 1943	133.6	126.2	108.0	107.2	124.1	113.6	121.0
March	137.4	127.6	108.0	107.4	124.5	114.5	122.8
April	140.6	127.9	108.0	107.5	124.8	114.9	124.1
May	143.0	127.9	108.0	107.6	125.1	115.3	125.1
June	141.9	127.9	108.0	107.7	125.4	115.7	124.8
July	139.0	129.1	108.0	107.6	125.6	116.1	123.9
August	137.2	129.6	108.0	107.6	125.9	116.5	123.4
September	137.4	132.5	108.0	107.6	126.3	117.0	123.9
October	138.2	133.3	108.0	107.8	126.7	117.6	124.4
November	137.3	133.5	108.0	107.9	126.9	117.7	124.2
December	137.1	134.6	108.1	109.4	127.9	118.1	124.4
January, 1944	136.1	134.5	108.1	109.5	128.1	118.3	124.1
February	134.5	134.8	108.1	110.3	128.2	118.6	123.7

Data: U. S. Bureau of Labor Statistics; 1935-39 = 100.

* Base month of NWLB's "Little Steel" formula.



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keep it on a WESTON paper*

Filling A Wartime Want

—a paper for a war plane manufacturer's much-thumbed instruction book involving clear reproduction of photographed detail as well as drawings and text.

A specially treated Weston ledger paper provides the perfect combination of endurance and utility for this purpose.

Here is one of countless examples of the paper industry's contributions to war work—work that will be reflected in future benefits of broad significance to all paper users.

BYRON WESTON COMPANY

DALTON, MASSACHUSETTS

MAKERS OF HIGH GRADE PAPERS



EVERY WESTON PAPER IS A COTTON FIBRE CONTENT PAPER

unload on bakers, candy bar makers, and other commercial users.

● **OPA Steps In**—OPA stepped in and put on a ceiling. Then came squawks from the nut men whose product starts spoiling about three months after it has been picked.

So OPA gave them a breather Feb. 15 by telling them they could sell nuts shipped before Jan. 11 at preceiling prices. The nuts began to move, but they moved so slowly that spoilage and competition forced prices down. Now 15¢ will buy a nut and net a meager profit to the handlers.

● **Prices Too Stiff**—In normal times, surpluses would have been sold to commercial users. War demands have caught commercial users short this year, but at the stiff prices that the speculators have created, they can't afford to buy the coconuts.

Refrigeration Fear

Only 20% of the skilled repairmen are left, and industry is apprehensive of breakdowns. Training courses are offered.

Fear of breakdowns has mechanical refrigeration men more worried than they've been since last December's bottleneck in freezing room space (BW—Jan. 15 '44, p. 44) and last autumn's glut of foods (BW—Sep. 11 '43, p. 29).

Natural ice supply, however, promises to be a little better than last year's despite an open winter that kept sales high and storage low.

● **Lack of Maintenance**—The present critical situation in mechanical refrigeration is sure to get worse when hot weather hits the North. It centers around the shortage of repair and maintenance men.

In normal times, there were 28,000 skilled men to fix refrigeration equipment of 40,000 food dealers, 587,000 retail food stores, 291,000 public eating places, and the 20,000,000 mechanical boxes in homes. Today there are fewer than 5,700 repairmen left to do this job.

● **Industrial Must**—Dependable refrigeration is just as important to some war plants as it is in the perishable foods industries. Mechanical cooling machines are needed in the manufacture of high-octane gas, and penicillin, and in photographic mapping and bombsight storage.

Last summer the War Manpower Commission and the Office of Civilian Requirements got special recognition from Selective Service for refrigeration repairmen, but recently local draft

The Chemistry of Fluorescent Light

MODERN electro-chemical research made fluorescent the most efficient and economical artificial light known — in war plants now, in your home when peace is won.

Here is how chemistry combined with electrical engineering to perfect a new and better kind of light:

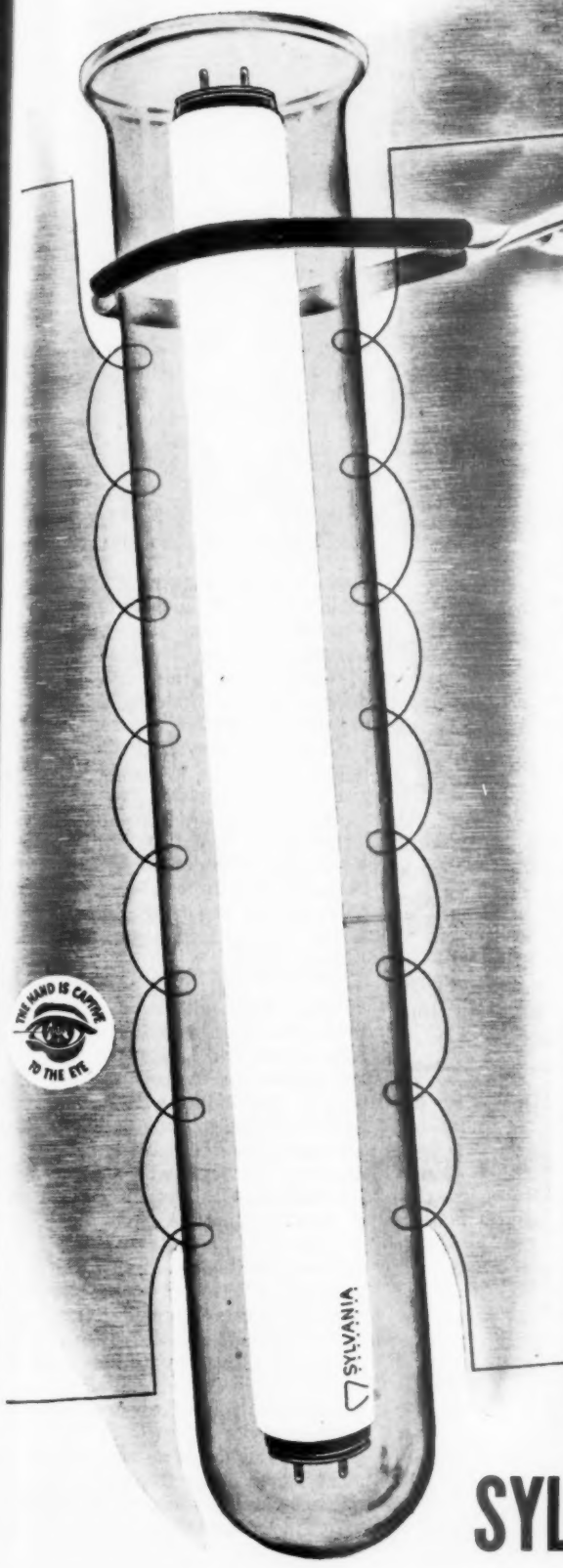
When electricity passes through a fluorescent lamp, it sets up ultra-violet radiation, which is invisible, electronic in nature, and not unlike mysterious Black Light.

It is the chemical magic of a fine coating of phosphors on the glass of the fluorescent lamp that transforms the internal radiation to visible light outside the lamp.

This chemical "transformer" brings new efficiency to the electrical production of light. Cool light with a minimum of infra-red heat waves. That's why a fluorescent lamp is so economical, why it gives $2\frac{1}{2}$ times the light for the same electrical energy.

It is because fluorescent development depends as much on chemical as on electrical engineering that Sylvania specializes in the compounding and blending of phosphors for fluorescent powder. This research has increased fluorescent efficiency and introduced lamps in colors most suitable for visual work.

That is why Sylvania lamps in Sylvania fixtures will give you fluorescent lighting at its electro-chemical finest.



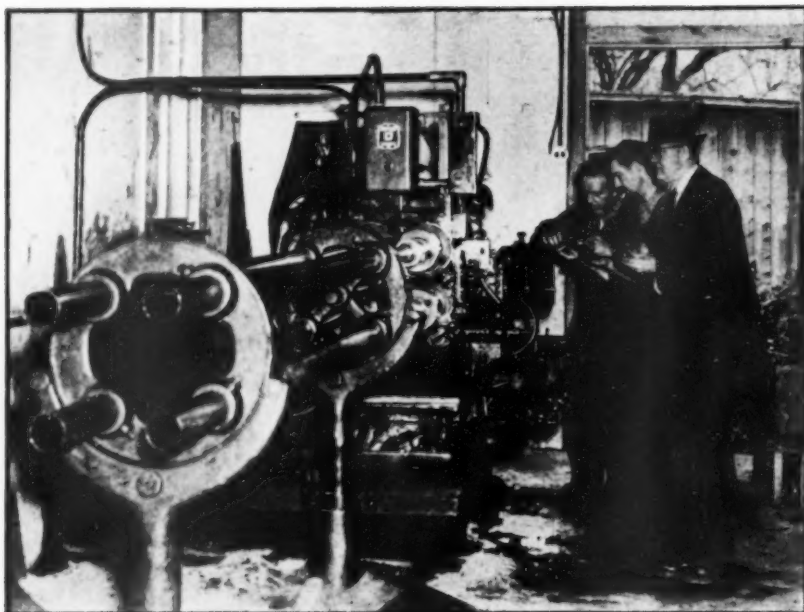
THE FIXTURE OF THE FUTURE

This model HF-235R fluorescent fixture rounds out Sylvania's industrial line. Its two 100-watt fluorescent lamps in Sylvania's non-metallic reflector give maximum lighting intensities with a minimum use of critical materials. (Reflector efficiency of 86%.) Streamlined top housing provides for complete hanging flexibility and encloses the ballast for protection.

SYLVANIA ELECTRIC PRODUCTS INC.

500 FIFTH AVENUE NEW YORK 18, NEW YORK

INCANDESCENT LAMPS, FLUORESCENT LAMPS, FIXTURES AND ACCESSORIES. RADIO TUBES, CATHODE RAY TUBES, ELECTRONIC DEVICES



RURAL WAR PLANT

Machine shop and foundry work on war contracts is a far cry from farming; but at Warrensburg, Tenn., J. L. Smelcer does both. With such equipment as a four-spindle lathe (above) and a homemade cupola (left), he machines parts and makes castings for the Army and Navy—on his farm. As a sideline, he turns out plowshares. The job of tending his 998-acre farm and running his shop often keeps Smelcer busy 18 hours a day, gives part-time work to neighboring farmers. Formerly a blacksmith shop, the farm plant was established with help from Smaller War Plants Corp.

boards have been calling them up again. • **Training 5,000**—Foresceing the shortage, the refrigeration industry started to train new men and now has about 5,000 in its courses. Recruits are men in the upper-age brackets, 4-F's, and discharged military personnel; women aren't much help because the work is fairly heavy, greasy, and smelly (sulphur dioxide fumes).

But it takes 18 months to train a man sufficiently to be sent out alone, and five years to make a skilled repairman. The industry is hoping to get 2,000 deferments. Every month the need for repairs increases as equipment that would under normal conditions have been discarded and replaced with new continues in service.

• **Capacity Is Up**—Commercially made ice in storage will be about 500,000

tons above what it was last year for the summer season. Capacity of ice-making plants was 300,000 tons a day last year; it has been stepped up 9,000 tons a day this year. Two-thirds of this increase came from expansion or modernization of present plants, one-third from repairs and reopened idle plants. Ice that is cut from lakes and rivers for storage will represent 3% or 4% of the total ice in warehouses.

Last spring an abnormal demand caused an ice famine that resulted in limitation orders from the Interstate Commerce Commission to insure fair distribution among shippers of perishable foods. Shortage of ships that normally carry citrus fruits north (BW—Jul. 3 '43, p. 38) caused fruit growers to seek iced railway cars and precipitated the run on ice.

Talking Ceases

Survey shows "somebody" intends to do something about the weather after this war by hiring own forecasting service.

A bright postwar future for private weather forecasting and consulting agencies seems to be forecast by preliminary returns from a survey of business requirements for meteorological service now being conducted by the University Meteorological Committee.

• **Firms List Needs**—Through its executive secretary, Thomas B. Marshall, with headquarters at the Institute of Meteorology, University of Chicago, the committee has disclosed that of the first firms replying to the committee's questionnaire, 80% indicate their interest in subscribing to the forecasts of a private weather organization; 32% desire climatological reports on various sections of the country; 60% want reliable 6-, 12-, 24-, and 48-hour weather forecasts; 48% say five- to seven-day forecasts would be valuable.

None of the firms replying to the questionnaire is interested in maintaining its own weather service, but about 10% say that they might be interested in the "service of a trained meteorologist ready to forecast the weather or temperature or any other climatic condition for any point."

• **Jobs for Veterans**—Surprisingly, the U. S. Weather Bureau is supplying only 17% of the reporting firms with its special weather forecasting service (BW—May 9 '42, p. 16).

The University Meteorological Committee, which draws its membership from five universities (California, Chicago, New York, plus the California and Massachusetts Institutes of Technology) cooperating with governmental agencies in the training of thousands of meteorologists, is said to be almost unanimous in believing that many of the thousands (the total number trained is a military secret, but 4,000 were scheduled to graduate in 1943 alone) will find weather forecasting jobs awaiting them when they are mustered out of service; others are expected to organize private meteorological firms in strategic locations within and without the United States.

• **Needs Multiply**—Postwar demands for weather service appear to go beyond the kind of straight forecasting that department stores desire for scheduling special sales events and gas companies require for determining future heating loads.

Textile firms, which must have high



PROPELLER SPEEDUP

Blades for landing-barge propellers look like giant mushrooms (above) when set up on special racks for sand-blasting. By this method, Milwaukee's Ampco Metal, Inc., processes a dozen blades in considerably less time than formerly required to do each one individually. When cleaned and delicately balanced, the bronze-alloy segments are sent to another plant for installation of a complicated mechanism that controls the propeller's pitch.

humidities in the weaving of wool, say they will be willing to pay well to find consistently humid locations for new mills in order to save money in the long run on air conditioning; western orchardists would like both to obtain reliable frost and storm warnings and to get reports in advance of dry, windless days of the kind that is suitable for dusting trees with fungicides and insecticides.

• **Hunt Weather Freaks**—Certain chemical plants are particularly interested in an abnormal weather condition called "temperature inversion," wherein the upper air becomes hotter rather than colder than ground air, causing chemical fumes and smoke to hug the ground closely.

If they could be forewarned of the condition, they might frequently postpone the operation of processes giving off such fumes and contributing to the corrosive and uncomfortable "smog" of certain cities.

**MAGNESIUM
PETROLEUM
QUICKSILVER
GOLD
TUNGSTEN
BORATES
RUBBER
LUMBER
COTTON
AND MANY MORE**



TERMINUS of three transcontinental railway systems; many truck lines; four transcontinental bus lines; transcontinental airlines... Metropolitan Oakland Area is most favorably located for low-cost assembling of raw materials and low-cost distribution of finished products.

"...almost at your door, Jack!"

"California alone produces more than sixty metals and mineral substances for industrial use...rubber and petroleum...lumber and cotton...and many others...almost at your door.

"And nearby states add to the list. In peacetime the Orient and South America discharge their raw materials direct to Metropolitan Oakland Area's deep-water terminals. You might even have a fireproof modern plant right at the waterfront close to the docks.

"Metropolitan Oakland Area is the highspot, the center of that whole amazing *New West* with its millions of new customers, new huge pool of skilled labor, its new industrial opportunities, and its mild climate favorable to maximum production.

"Start right now, Jack, planning for a postwar factory out there."

"**FACTS AND FIGURES**" BOOKLET will be sent to any manufacturer interested in establishing a West Coast factory. If you will detail your requirements, we will compile a *Confidential Special Survey*, showing how and why Metropolitan Oakland Area is most favorable location for your western operation.

**METROPOLITAN
OAKLAND AREA**
CALIFORNIA

METROPOLITAN OAKLAND AREA
387 Chamber of Commerce Building
Oakland 12, California



*Mainland Gateway to the
Postwar Markets of the Orient*

The NATURAL Industrial Center of the NEW West

3423

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BERKELEY - EMERYVILLE
DAYTON - LIVERMORE
OAKLAND - PIEDMONT
PLEASANTON - SAN LEANDRO
RURAL COMMUNITIES
OF ALAMEDA COUNTY

PRODUCTION

No Straitjacket

Army Ordnance allows use of wide range of steel in new shell containers but makes rigid tests of production samples.

Army Ordnance specifications for its new steel shipping containers for artillery ammunition (BW-Mar. 18'44, p19) are being made as flexible as possible to permit the use of a wide variety of available steels and fabricating equipment.

• **Rigid Tests**—As rapidly as alternative materials and methods can be tested, an official in touch with the program disclosed, they are authorized. For example, Ordnance will authorize the use of rolled steel, and any standard type of welding.

This does not imply that requirements are lax. Tests on run-of-produc-

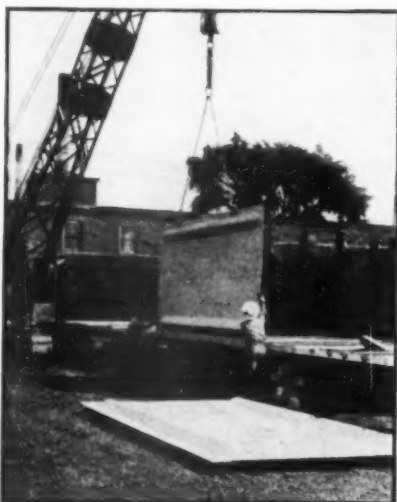
tion samples, under strict Army control, are being used in an effort to make sure that these containers will stand the roughest possible handling.

These tests include four hours of vibration to simulate rail and truck transport, repeated bouncing around in revolving drums, banging critical edges against the 2-in. side of a plank, finally a 24-hour drenching under running water.

• **Weight a Factor**—Steel specified for large size containers is 16-gage (0.062 in.); covers and inside stops are of 13- and 14-gage (slightly heavier).

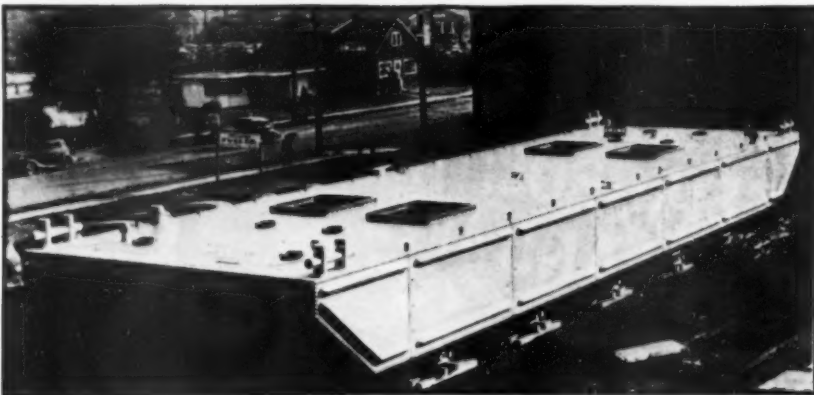
In working out design and specifications, Army Ordnance has had the opportunity of studying steel containers captured from the enemy.

Because native labor sometimes objects to carrying individual loads of more than 40 lb. or 50 lb., the Army likes to keep gross weight of any overseas package to about 50 lb. Gross weight of steel-packaged shells for the bigger guns (90 mm. and 105 mm.)



SPACE SAVERS

Shipped knocked down to save vital cargo space, prefabricated sectional barges are now being bolted together right behind the fighting fronts. An adaptation of a basic design of the American Steel Dredge Co., Ft. Wayne, Ind., the KD barges—104 ft. long with a capacity of 500 tons—can be assembled (left) by unskilled crews within 500 hours. And although the barges are produced by several manufacturers, processing standards have been made so exacting that sections are interchangeable.



exceeds this theoretical maximum. They weigh about 45 lb. each and individual steel containers add another 15 lb. Wooden containers weigh slightly less than steel.

• **Plate Supplies**—Some steel men say that use of steel in ammunition shipping containers implies some easing in demand for plate, in view of the fact that rolling mills, up to this time, have been booked to full capacity with Maritime Commission orders, and allocation of flat-rolled steel for containers may reflect the existence of ship-plate stockpiles equal to several months' requirements.

Alky From Spuds

Government agencies buy surplus potatoes for manufacture of industrial alcohol. Farmers are paid support prices.

Between 20,000,000 bu. and 30,000,000 bu. of surplus potatoes, now beginning to sprout in farmers' bins, are going to war in another form—industrial alcohol.

• **To Be Dehydrated**—The War Food Administration, the Agricultural Adjustment Administration, and the Commodity Credit Corp. have begun the purchase and shipment of potatoes left over from last year's bumper crop.

Those bought in eastern areas are being sent to Ohio for dehydration in sugar beet plants. Commercial and whisky distillers could not process bulk potatoes, because their milling equipment was installed for the processing of grain. Dried potato flakes resemble beet pulp and can be handled by present facilities. Distillers estimate that a bushel of potatoes will yield about 14 gal. of alcohol.

• **Pay Support Prices**—Under present plans, surplus potatoes will be bought in Maine, in the Red River Valley area of North Dakota and Minnesota, in Nebraska, and in unrevealed quantities elsewhere.

In Pennsylvania this week, county AAA agents were buying 500,000 bu. for the Commodity Credit Corp. at government support prices. Prices ranged from \$2.40 to \$1.44 per cwt., depending on grade, less 35¢ per cwt. because purchases were made in bulk.

All grades are being taken at first. AAA will cull out the better grades for home consumption.

The surplus potatoes will be shipped in open gondola cars, thus relieving already scarce refrigerator cars for the record California crop of perishables, particularly citrus.



Magic bottle rescues flyer!

Gas-under-pressure is stored in small Kidde cylinders on rubber rafts that keep our forced-down flyers afloat. Pilot turns a valve and gas expands 450 times, pouring life-saving buoyancy into raft in three seconds. This is carbon dioxide — the gas that puts "fizz" in soda pop!



Gas brakes for crippled planes!
When hydraulic system is shot up, pilot switches to Kidde carbon dioxide to power the brakes, bomb bays, landing gear.



Snow-bath for a hot engine! If fire breaks out in big engines of PT Boats, a blizzard of snow-and-gas from Kidde carbon dioxide extinguishing system blasts it out.

Motor-bike built for two—firemen!
Naval airports kill fire fast, with Kidde carbon dioxide extinguishers rushed by motorcycle "crash trucks" to scene of fire.



Gases-under-pressure, harnessed by Walter Kidde & Company, are serving our fighting men in many ingenious ways. After the war they'll serve you. Look for them!



WALTER KIDDE & COMPANY, INC., 321 MAIN ST., BELLEVILLE, N. J.



*An Important Message
to Manufacturers*
from PRENTICE COOPER
GOVERNOR OF TENNESSEE

POWER COSTS are PART OF PRODUCTION COSTS

CERTAINLY you must consider future power cost in your plans for meeting postwar competition. Not only the cost but also the availability of **adequate power**.

Tennessee is one state that offers either hydroelectric or steam-generated power in abundance. The giant hydroelectric system of TVA will have a postwar maximum capacity of 18 billion kwh available at the **lowest rate in Eastern America**.

The four thousand square miles of coal-producing fields, with short hauls to every section, insure economical steam-power generation.

Low-cost power is only one of the many advantages to plant locations in Tennessee. Check the other **basic advantages** listed.

Manufacturers interested in meeting changing conditions, increasing population shifts, and postwar competition should investigate Tennessee now.

Write for specific information and surveys relating to your particular requirements. Ask for illustrated book: "Tennessee—Land of Industrial Advantages."

Basic Advantages To Plant Locations In Tennessee

- ★ An unsurpassed variety of major industrial minerals and agricultural products.
- ★ Huge coal reserves making possible economical steam-power generation.
- ★ An inexhaustible supply of industrially suitable water.
- ★ Inland waterway system of three great rivers for low-cost transportation to Midwest, Gulf, and World ports.
- ★ Central location permitting 24-hour delivery to more than 51% of the Nation's population.
- ★ Excellent railway, highway, and airline transportation.
- ★ Cooperative skilled and semi-skilled native-born labor.
- ★ Opportunity for low-cost assemblage of raw materials or manufactured parts.
- ★ Uncongested plant sites near basic materials, river and rail terminals.
- ★ Ideal living conditions for both employer and employee.
- ★ Sound State tax structure. No personal earnings or sales taxes.
- ★ State and municipal governments friendly to industry.

Governor's Industrial Council, Department of Conservation
718 State Office Bldg. Nashville, (3) Tenn.

Investigate **TENNESSEE**
THE FIRST PUBLIC POWER STATE

Ideas Win Citation

"Distinguished service" certificates won by 158 civilians for better methods and designs that save time and critical materials.

On Feb. 20 Milwaukee newspapers reported that John P. Hess, a foreman of the Chain Belt Co., had been awarded a "citation" signed by Maj. Gen. L. H. Campbell, Jr., Chief of Ordnance, for the development of an improved boring tool which is saving many machine hours and speeding the production of gun tubes.

At about the same time in Waterbury, Conn., it was reported that Fred Lux of the Lux Clock Co. had been awarded a similar citation for work on the internal gear of a bomb fuse which has resulted in a "distinct saving in material, man-hours, and costs."

● **158 Citations**—All told now, in dozens of communities all over the country, Army Ordnance has issued 158 citations for "distinguished service" to civilians working on ordnance items. There has been practically no general publicity, no fanfare to compare with that given the awards and citations set up by WPB in its War Production Drive (BW-Mar. 11 '44, p. 56).

The certificate simply says over Gen. Campbell's signature that the honored worker or manufacturer whose name is engrossed on it "has rendered distinguished service to his country in the struggle to maintain the freedom of all people. By the exercise of his initiative and ingenuity he has made a marked contribution to the vital war production program to conserve critical material and machines."

● **Mortar Shell Design**—Range of the services for which citations have been made is almost as broad as the vast ordnance program itself.

One of the first citations, for example, went to Thomas E. Murray of the Murray Mfg. Co., Brooklyn, for developing a new 81-mm. mortar shell that can be stamped out and welded.

Unlike the previous design which had to be made from a solid forging, Murray's calls for two identical hollow halves formed in presses, joined by welding and machined, with a "saving for other uses of 12,000,000 lb. of steel and 750,000 machine-hours on the present procurement."

● **Stamped Triggers**—Later citations went to each of three men in as many companies who worked cooperatively in the change from solid to stamped steel for the triggers of the .45-caliber automatic pistols—a conversion saving a large

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number of man-hours, many tons of steel, and almost 100 milling machines. The development came from the joint efforts of H. E. Howland of the Ithaca Gun Co., Ithaca, N. Y.; V. G. Yawman of Yawman Metal Products, Inc., Rochester, N. Y.; and Clarence Meyer of the Meyer Tool & Die Co., Rochester, N. Y.

Douglas B. Ellis of the Browning Arms Co., St. Louis, Mo., has been cited more recently for his "untiring efforts in establishing a used shotgun procurement program at the beginning of the war, which saved Army Ordnance thousands of new shotguns and permitted shotgun manufacturers to produce other guns and material vitally needed" at that time.

Salesman Cited—Citations have not been confined to the metalworkers or to the field of metalworking, as evidenced by one awarded to J. A. MacManaman, a salesman for the American Hair & Felt Co., Chicago. He made a nationwide tour (1) to explain the merits of hair and wool felt to various Army Ordnance engineering groups, (2) to show how such critical materials as wool, latex, rubber, and sisal could be conserved, and (3) to demonstrate how millions of taxpayers' dollars could be saved.

Upshot is that hair felt pads, costing \$25 per set, have replaced sponge rubber crash pads, in every medium tank at a net saving of \$122 each, plus improved resistance to impact shock and to fire and the saving of 2,997,000 lb. of crude rubber in 1943 on the tank and jeep program.

So successful have the hair felt pads proved that they have been adopted for the seat cushions of tanks and jeeps, the lining of tank helmets, the padding of ammunition chests, and several similar applications.

NEW INSTITUTE FORMED

Livingston B. Keplinger, vice-president of Rheem Manufacturing Co., New York, was elected president of the Steel Shipping Container Institute, Inc., at its organization meeting which was held last week.

Patterned after the American Iron & Steel Institute, the new container institute aims to collect and distribute data, and to collaborate with government agencies. After the war, some members said, the institute may function to prevent cut-throat competition such as flourished in this industry a few years ago.

Institute vice-presidents include H. V. Lees, Draper Manufacturing Co., Cleveland; John Hauerwaas, U. S. Steel Products Co., New York; E. C. Gardner, National Enameling & Stamping Co., Granite City, Ill.



How to keep from moving — at 30 miles an hour



A TANK on rough ground will jounce the daylights out of its passengers—all except one.

That one is its big gun which can stay fixed on the target, even while the tank is charging over rough ground.

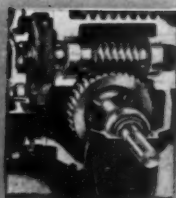
Why? Because it is ingeniously cradled in a gyroscopic ball bearing mount. The same kind of gyro, using the same kind of ball bearings that make much other American war equipment so effective.

Proved in the crucible of combat, ball bearings prevent wear, locate moving parts accurately, reduce maintenance . . . in tanks, planes, ships and the other equipment in this most mechanized of all wars.

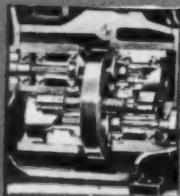
New Departure, America's most productive ball bearing plants, is responding to this tremendous swing to ball bearings, wherever shafts turn—wherever motion must be friction-free.

Nothing Rolls Like a Ball
NEW DEPARTURE
BALL BEARINGS





Gearhead Unit

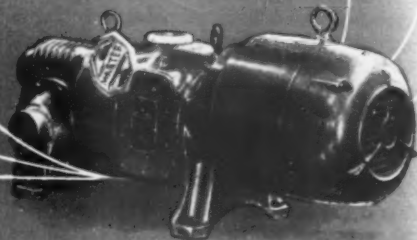


Variable Speed Unit

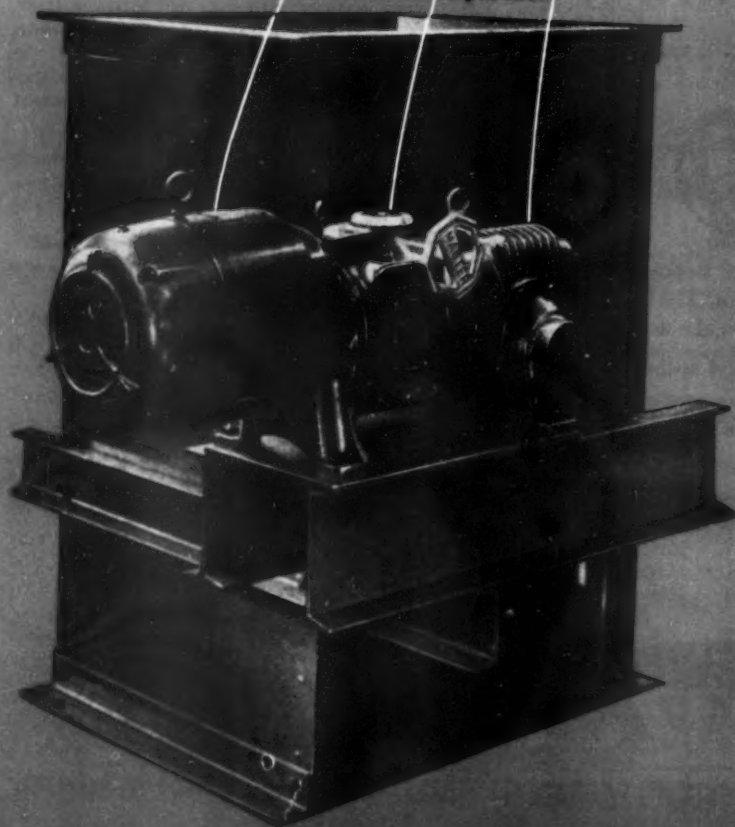


Fan-cooled Motor

easily combine to form a compact integral power unit



which adds greatly to the economy, safety, compactness and appearance of the finished product



easy does it

This is just one of the thousands of combinations that can be secured in the Master Line, which is the most versatile, the most flexible line of motor equipment available.

Single phase, squirrel cage, slip ring, multi-speed, synchronous, direct current, enclosed, splash-proof, fan-cooled, explosion proof, elevator, hoist, reversing, gearhead, Speed-rangers, Unibrake, vertical and horizontal flange units . . . all are designed so they can be easily combined to provide the power drive best suited to each application.

Investigate Master's unusual ability to serve you economically with motors that really fit the job exactly.

**THE MASTER ELECTRIC COMPANY
DAYTON 1, OHIO**

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Business

Spoilage Fought

Elgin inaugurates bonus pay system in effort to reduce high spoilage in manufacture of synthetic jewel bearings.

In an effort to reduce average monthly spoilage of 75% in cutting the tiny synthetic sapphire jewel bearings which it makes for timepieces and precision instruments, the Elgin National Watch Co. recently inaugurated a group bonus pay plan in its Aurora, Ill., sapphire products division. Jewel bearings are required in huge numbers for war use—5,000 for the instruments of a battleship, 100 or more for the instruments of a bomber.

• **200,000 Disappear**—Under present processes, 800,000 blank jewels must be started through production lines to insure obtaining 200,000 perfect bearings monthly, many of these smaller than grains of sand. Of the remaining 600,000 blanks, about 400,000 are spoiled in processing and 200,000 simply disappear.

With tolerances running to 0.0001 in., and each jewel going through about 60 operations, complete-in-process inspection would be too expensive, because careless workmanship at one point may not show up until several operations later.

• **Bonus Formula**—The new bonus system supplements the standard piece-work plan in the plant.

The 400 employees—80% of them women—will receive a bonus in their paychecks based on a rate of 25% for the first 50% over-all increase in output of good jewels. For over-all increases under 50%, a 1% bonus for each additional 2% of increase (4,000 usable jewels) will be paid. For increased production above 50% (100,000 extra jewels shipped), the employees will get 1% for every additional 1% increase (2,000 bearings).

The bonus for all output above the monthly quota of 200,000 bearings is based on 100% attendance. Bearings shipped in excess of the 200,000 quota will be counted as reduction in scrap. If, during the month following adoption of the plan, 73,000 additional good jewels are produced, it will mean a saving of about \$20,000 for the plant's sole customer, the United States government.

• **Infant Industry**—Reduction of spoilage would mark another advance in a relatively new U. S. industry. The domestic manufacture of jewel bearings in the U. S. had only an experimental start until Swiss imports became unobtainable, and American manufacturers

were forced to work out advanced production methods.

• **Surpass Natural Stones**—The pear-shaped, 2½-in. synthetic "boule" from which bearings are made is said to be exactly like a natural white sapphire in hardness, chemical composition, specific gravity, and index of refraction.

The jewels are made in the U. S., as formerly in Switzerland, by fusing powdered aluminum oxide in an extremely hot oxy-hydrogen flame.

Synthetic jewels are preferred to natural stones because they have fewer internal defects, hence are less likely to crack.

N. E. STEEL WORRIES WPB

WPB's Steel Division is concerned about the tendency of some manufacturers to get away from the leaner alloy or N. E. (national emergency) steels (BW—Feb. 5 '44, p. 15), in view of an easier supply situation the past few months. Trade sources say the real reason behind the worry is that a large supply of N. E. scrap has been piling up, and it can best be used in making more N. E. steels.



FOR QUICK CHANGES

Permitting complete replacement of an aircraft engine in less than 30 min., the "power egg" method of installation is growing increasingly popular. Before its development by British and American aviation, planes were laid up a full day for a change of power plants. Under Lockheed Aircraft's version of the system, each of the four engines on a C-69 cargo plane is replaced in easy steps made possible by simplifying the engine's connections for wiring and piping.

Wood to Metal

New rubberlike material is developed to replace tin-base bonds in laminating processes. Use in housing predicted.

A new means of joining thin wood veneers to metal, developed in the Goodyear Tire & Rubber Co. research laboratory, has brought with it a wide vista of uses both for now and for after the war.

• **Replaces Tin-Base Bonds**—The new rubberlike bonding material, called Pliobond, was developed to replace tin-base bonds which have been unobtainable since this war began. In the development, L. B. Sebrell, Goodyear research director, believes that a better product may have been obtained.

With it, wood strips as thin as 1/48 in. can be cemented to a metal surface. The metal then can be handled as before the joining—stamped or cut into any flat shape, or welded to another metal—without tearing the wood loose.

• **Prospective Uses**—The advantage of Pliobond is that the tensile strengths, working ease, and fireproof qualities of metals can be combined with the beauty of laminated woods. Widespread applications are expected in homes, furniture, aircraft, autos, railway cars, and ships.

The new material requires no critical components, so it may make an appearance in civilian applications soon.

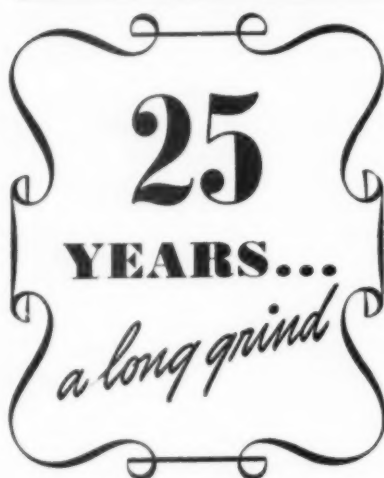
• **Simple Process**—The process of handling is simple. Pliobond is spread on the metal sheet, the layer of wood is placed over it, and the "sandwich" is then put into a press under moderate pressure and heat for 15 minutes. Mass production thereby becomes feasible.

The ability of the new bond to withstand stresses caused by bending is expected to recommend it for a host of new uses hitherto thought impossible, Sebrell believes. In experiments in the Goodyear laboratory, aluminum and steel sheets, with wood bonded to them, were curled into small diameter cylinders without splitting the wood.

Another attribute of the bond, particularly for furniture applications, is the quick heat transfer qualities of the underlying metal. For example, a lighted cigarette will not scorch the wood surface.

Goodyear technicians believe their discovery may have widespread use in prefabricated homes. Such units could employ Pliobond to produce unusual interior effects of wood paneling, while the underlying metal could be fabricated by structural bolting, riveting, or welding.

PRECISION PARTS



THE smoke of battle from the last war had hardly cleared away when the present owners of Ace went into business as makers of precision parts. Those first few years after World War I were not easy. But doing highly accurate work, and doing it better and faster, carried Ace steadily along until today it is one of America's outstanding precision metal-working plants.

To our customers and suppliers with whom we have had the privilege of working during this quarter-century, we extend our hearty thanks. To future customers, we pledge the same careful attention to specifications that has made so many friends for Ace in the past.

Let us quote you on small parts or assemblies calling for stamping, machining, heat-treating, or grinding. Send sketch or blueprint.



The Ace Precision Metal-Working Plant.



ACE MANUFACTURING CORPORATION
for Precision Parts



1211 E. ERIE AVE., PHILADELPHIA 24, PA.

NEW PRODUCTS

Cold Cathode F-Lamps

The new Colovolt Cold Cathode Low Voltage Lamp, manufactured by the General Luminescent Corp., 638 S. Federal St., Chicago, is a fluorescent tube which comes in a standard diameter of one inch and one length of 7 ft., 9 in. The new Kold-Volt Cold Cathode Fluorescent Industrial Lighting Unit, manufactured by the Mitchell Mfg. Co., 2525 Clybourn Ave., Chicago, is a ceiling fixture which comes complete with reflector and four of the foregoing Colovolt lamps ready for surface or suspension mounting after the manner of hot cathode F-lamp fixtures.

Together, the two products offer a significant change in cold cathode practice which has formerly called for special installations of long continuous tubes and high operating voltages provided by a transformer (BW—Feb. 14 '42, p. 64).

Advantages claimed for cold cathode lighting include: (1) instantaneous starting without the use of "starters" and without warming up; (2) starting and operation in low surrounding temperatures; (3) absence of flicker; (4) lamp-life expectancy of 8,000 or more hours and a guarantee of one year's operation; (5) insensitivity to wide variations in line voltage; (6) low surface brightness, hence minimized glare. Both fixture and lamp are designed for operation on standard 110-115-v., a.c. current, but can be operated at higher voltages.

Shearcut Millers

Just before the turn of the year, the Shearcut Tool Co., 362 S. Maple Dr., Beverly Hills, Calif., brought out a new



boring bit with a circular cutting edge which can be rotated from time to time to present a new cutting edge to the work without destroying a particular setup (BW—Dec. 11 '43, p. 73). Now the same company is bringing out still newer Shearcut "Lifetime" Milling Cutters with circular cutting bits.

The tools are said to "remove metal in a true shearing action," usually leaving a "finish without tool marks, which often eliminates the necessity for grinding or polishing. . . . Recommended operating speeds are double that of regular type milling cutters." When sharpening becomes necessary, "regrinding is a very simple matter demanding no special skill and less than 15 min.

THINGS TO COME

New manufacturing techniques and economies developed during the war years for the deep-drawing of steel shell cases for military ammunition will pay at least one extra peacetime dividend when applied to the production of kitchen utensils. Pressed steel pans, pots, and skillets will have the thick bottoms, thinner tapering sides, and heat-holding characteristics that have been associated up to now with higher-priced utensils cast out of iron or aluminum.

The future of synthetic rubber in belting for conveying and power transmission is secure—whether natural rubber comes back for automotive tires or not. Reasons: superior resistance of many synthetics to oil and abrasion; reduced maintenance costs. It is even being found that sections of new GR-S synthetic belting can be attached to old natural rubber belting with smooth vulcanized splices when repairs are required in existing installations.

Flat wheels on fast railroad trains promise to become things of the past—with all that means to passenger comfort and peace of mind—through the development of a new attachment which causes the air brakes on a given pair of wheels to "soften" up a bit when the wheels begin to slip during braking and to re-engage uniformly with the brakes on other wheels of the train when the offending wheels regain train speed. That the ingenious mechanism, or something like it, will be adopted widely is practically assured because wheels will have to be returned and trued less often than now, cars will be kept in service longer between "shoppings," schedule delays will be reduced.

ates." The cutters are furnished in various sizes with either No. 40 National Standard shanks or No. 9 Brown & Sharpe taper shanks.

Hard Hat

Front and rear views of the new "Air-lined" Hard Hat, manufactured in a single size by the E. D. Bullard Co., 275 Eighth St., San Francisco, show



corrugations molded into the crown for added strength and protection to workers in shipyards, construction projects, etc., plus a fresh note of styling.

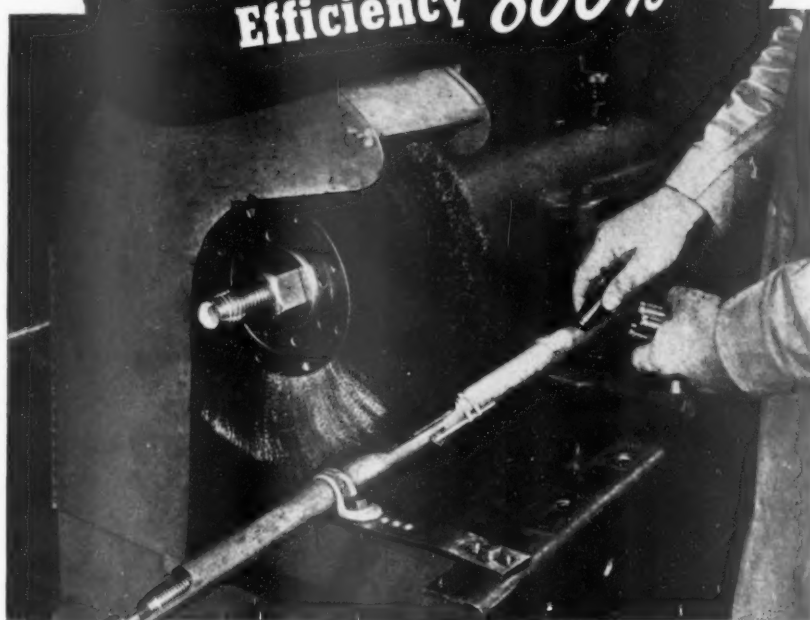
What the views do not reveal is a full-floating, self-adjusting sweatband that "shapes instantly to any size of head" after the "hammock" string is adjusted, rendering unnecessary the stocking of more than one size of protective hat for men and women.

Air Sterilizer

More than 400 hospital installations have preceded the introduction to the business and industrial markets of the new Hygeaire Ultraviolet Germicidal Radiation System developed by the American Sterilizer Co., Erie, Pa. Business part is a tubular G-E germicidal lamp backed by a patented reflecting fixture which is designed for mounting on any room wall or partition to project radiation horizontally and at a height above eye level.

Theory behind it all is that air currents moving up and down in a room by convection carry air-borne bacteria and viruses through the radiation, putting them out of business. Germicidal effect is said to be that of "over 100 air changes an hour at a cost of less than 1¢ a day per 1,000 cu.ft. of room volume." The system is offered as an aid to cutting down contagion and consequent absenteeism in crowded offices, stores, and plants. Purchasing agents, employment managers, and others who must interview many people are expected to desire personal protection.

How a Piece of Gas Pipe Can Increase Burring Efficiency 800%



IT took 18 seconds to brush the threads on a $\frac{1}{4}$ x $2\frac{1}{2}$ -inch set screw.

It can be done in 2 seconds.

That's 1800 per hour as against 200 . . . or a saving of an entire month's time on a run of 50,000.

An ordinary piece of gas pipe can make all that difference. Cut a slot in it and mount it in position before a battery of Osborn brushing wheels.

Instead of brushing each stud separately, the operator simply feeds the work in at one end of the gas pipe and the rotating motion of the brush spins and cleans the threads uniformly. A little stationary brush inserted through the pipe as illustrated

controls rotation and traverse.

This simple little fixture can be used for burring and polishing many small cylindrical parts, threaded or smooth. It can be made of steel, fiber or plastic tubing, depending upon the nature of the work.

This is just one of many simple solutions that can speed up your production by the proper use of brushing wheels and simple fixtures, as proved in many plants by Osborn Brushing Analysis.

This famous fact-finding survey originated by Osborn has been necessarily curtailed due to wartime pressure. However, a limited O. B. A. service is available for specific operations on vital production.

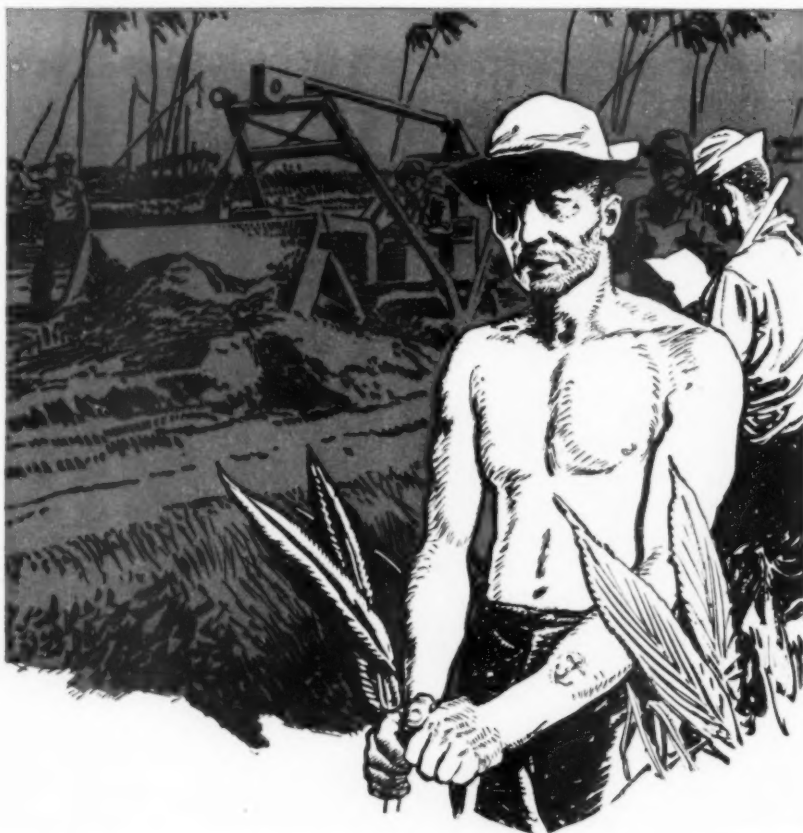
THE OSBORN MANUFACTURING COMPANY

5401 Hamilton Avenue

Cleveland, Ohio



WORLD'S LARGEST MANUFACTURER OF BRUSHES FOR INDUSTRY



Merry Christmas—on March 17th!

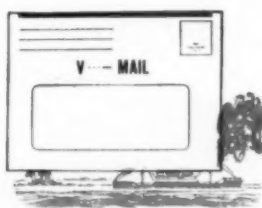
Sounds silly, doesn't it? But it's true . . . Some of our servicemen in the Pacific are getting their Christmas mail in the middle of March—months too late . . .

If only the writers at home had thought to . . .

Use V-MAIL

Ordinary mail must go by ships, in convoy . . . often takes months to get to points where servicemen wait for news from home. Letters months late make them wonder and worry.

V-Mail flies, travels farther in two hours than a cargo ship in a day . . . arrives in days rather than weeks, still fresh, newsy, close to home. V-Mail is safe and sure; can be sent again if a plane is lost. When a ship is lost, the letters aboard are lost for good! And V-Mail costs no more than ordinary mail. It's a special



service for servicemen, maintained by the government to get letters to overseas forces as soon as possible.

Use V-Mail for all letters to servicemen stationed abroad. Get V-Mail forms from your post office or RFD carrier. You can buy them at your stationer's. Or we will send a sample packet of six forms with our compliments. Address . . .



PITNEY-BOWES POSTAGE METER CO.
1470 Pacific Street, Stamford, Conn.

Originators of Metered Mail, world's largest manufacturers of Postage Meters, which print postage for business mail . . . now devoted to war production.



WAR BUSINESS CHECKLIST

A digest of new federal regulations affecting priorities, price control, and transportation

Increased Civilian Supply

Production of bedsprings and box springs may be increased by 25%, and the amount of steel per unit is also increased, as a result of amendment to WPB's Limitation Order L-49. . . . Though pepper allocations to civilians will be cut about 6% this year, War Food Administration announces that the over-all spice supply has increased about 22%; in the New York metropolitan area approximately 6½ million lb. of black pepper is being requisitioned from importers and holders to meet essential civilian and military needs. . . . Revocation of Schedule 3 to WPB Order L-211 removes restrictions on the manufacture of barbed wire and woven wire fence. . . . Partly to conform to municipal plumbing codes, WPB, through amendment to Schedule IV, Order L-42, permits production of extra-heavy cast iron soil pipe prohibited since June 1, 1942.

Relaxation of Priorities

Controls on distributors' purchases of most steel products are relaxed by WPB's General Preference Orders M-21-b-1 and M-21-b-2; other WPB rulings permit the use of alloy steel in vises (Schedule VI, L-216) in scrapers, angledozers or trailbuilders, and bulldozers (revocation of Schedules I, III, IV, L-217); in hand-operated wood and special-purpose saws (Schedule III, L-157 as amended). Steel is also freed for use in bases for refrigeration condensing units with motors of certain sizes (revocation of Schedule II, L-126). . . . To improve the quality of industrial power trucks, WPB has lifted restrictions on the use of synthetic rubber for anti-motor-vibration plates, on the use of lead for counterweights, and of steel plates for battery boxes, by amendment to Order L-112. . . . While OPA has placed price ceilings on used cameras and photographic equipment to block black market operations (BW-Mar.18'44,p36), WPB through an amendment to Order L-267 has slightly eased controls over production and distribution of restricted photographic equipment for nonmilitary orders. . . . Restrictions on metals are removed in industrial types of incandescent lighting fixtures and relaxed in residential types through amendment to WPB Order L-212.

Controlled Materials

Petroleum producers need no longer file PAW Form 35, stating in advance their anticipated controlled materials requirements. This action of the Petroleum Administration for War provides also that no approval is necessary on delivery orders of controlled

FOR SEE-ABILITY

Building today's super-powerful aircraft engine calls for a high level of

See-ability. For each giant 2200 horsepower motor made in this plant demands 80,000 machining operations and 50,000 inspections—130,000 vital seeing jobs where improper lighting could mean a serious, delaying error. See-ability—made possible by today's high-efficiency Westinghouse Mazda Lamps—enables workers to combine hairline accuracy with high speed operation, cuts down eye-strain and fatigue. Consult your Westinghouse dealer about See-ability with bright, long-lasting Westinghouse Mazda Lamps, or write Westinghouse Electric & Manufacturing Co., Bloomfield, N. J. Plants in 25 cities . . . offices everywhere.



Westinghouse

MAZDA LAMPS FOR SEE-ABILITY

Enjoy the Westinghouse radio program with John Charles Thomas,
NBC—Sunday—2:30 p.m.—E.W.T.



Timken Bearings Vital to Victory

In the war plants of the nation as well as in countless planes, trucks, tanks, ships and guns, Timken Bearings are doing a magnificent job for Uncle Sam. Timken Bearings have gained their undisputed leadership in American Industry because of Timken's specialized experience, scientific research, financial stability and unequalled manufacturing facilities. The Timken Roller Bearing Co., Canton, Ohio.

TIMKEN
TAPERED ROLLER BEARINGS

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materials costing less than \$2,500, if no one item costs more than \$500. A copy of such orders, however, must be filed with the appropriate PAW district office. (Preference Rating Order P-98-b, as amended.)

Industrial Alcohol

Nine subsidiaries of four major distillers producing industrial alcohol for war uses will receive a total of 88,354 bu. of granular rye flour per month on a temporary basis, the Alcohol & Solvents Section of the Chemicals Bureau of WPB has announced. The distillers whose subsidiaries are affected are Schenley Distillers Corp., Joseph I. Seagram & Sons, Inc., Hiram Walker & Sons, Inc., and U. S. Industrial Chemicals.

Sugar

OPA has announced that sugar stamp 50 in War Ration Book IV will not expire on Mar. 31 but will be good indefinitely, as will sugar stamp 31, which becomes valid for 5 lb. of sugar on Apr. 1. Industrial-user allotments—except for drugs and medicines—are cut so that total sugar use will fall within the current quarterly allocation of the War Food Administration. (Amendment 4, Revised Ration Order 3.)

Fats and Oils

The use of fats and oils in the manufacture of printing inks and in protective coatings for specified agricultural equipment (when coatings are applied by the manufacturer) is freed from restrictions by a War Food Administration order that broadens exemptions on fats and oils for certain food, drug, and beverage container coatings to include exterior coatings as well as interior ones. Other provisions relax controls on washed linseed oil and on the transfer of fats and oils for soap use from one class of soap to another; they also raise the fats and oils quota for water paint manufacturers. (FDO 42.)

Ethyl Alcohol Drugs

In spite of the increased federal tax on ethyl alcohol effective Apr. 1, drug products made of ethyl alcohol must continue to cost no more than their March, 1942, ceiling prices. OPA points out that the new tax—\$9 per proof gal., with a drawback to certain industrial users of \$6 per proof gal.—will net \$1 per gal. less than the tax in effect when ceiling prices for most of the drug products were first established.

Bituminous Coal

To build up depleted industrial stockpiles of bituminous coal as soon as possible after the close of this year's heavy burning season, Solid Fuels Administrator for War Harold L. Ickes has substantially suspended restrictions on stockpiling of bituminous coal mined in Indiana, Illinois, and western Kentucky, to encourage stockpiling up to 90 days' protection. Other Appalachian districts will receive similar orders relaxing stockpile restrictions about May 1, wherever such action is feasible. If industrial consumers, as well as pro-

ducers, do not take every opportunity to build up stockpiles during the warm months. Administrator Ickes warns that they may face serious difficulties next winter. (Amendment 3, Solid Fuels Administration for War Regulation 10.)

New Automotive Vehicles

To halt "cannibalization" of new vehicles held in reserve for rationing, WPB has forbidden anyone to remove or exchange any part of a vehicle if its operating efficiency will be impaired. To prevent an upset in the scheduled production program, after Apr. 15, medium truck chassis may not be converted to bus use, or medium bus chassis to truck use. (Conservation Order M216-b as amended.)

Shoes

Slow-moving stocks of children's low-priced shoes in specified size ranges will be ration free when sold by one dealer to another from Mar. 20 through Apr. 29. The ceiling for such sales is \$1.10 per pair. From May 1 through May 20, retail sales of these shoes will be ration free at \$1.60 top price. Shoes sold at retail must be marked "Released." (Amendment 54, Ration Order 17.)

All commercial exporters of rationed shoes are required to register as shoe establishments and to give ration currency to suppliers for shoes bought for export, under a recent OPA amendment. (Amendment 55, Ration Order 17.)

Pulpwood

Increases ranging from 50¢ to \$1.10 per cord have been granted in producers' ceiling prices on pulpwood in southeastern and central southern areas by an OPA move to insure continued production of this vitally needed commodity. (Amendment 2, Revised Regulation 387; Amendment 1, Regulation 410; Amendment 2, Regulation 433.)

Exports

As a further step in simplifying export controls, exporters are no longer required to submit import recommendations from countries of destination in applying for licenses to export certain trucks, cars, and other motor vehicles, office and radio equipment, petroleum products, and repair parts for industrial equipment from the United States to most other American republics, the Foreign Economic Administration has announced.

Lumber

Increases of from \$2 to \$7 per 1,000 b. ft. have been granted by OPA on mill ceiling prices for Southern pine common board and dimension lumber, and for Southern pine flooring, ceiling, siding, and partition material in lower-priced grades. (Amendment 2, 2nd Revised Regulation 19.)

Other OPA rulings set simplified log-run ceilings for rough shortleaf Southern pine lumber sold by small mills (Regulation 19A) and revise prices for southern distribution yards which, in the last half of 1943, proc-



...and more than 490 branches of this bank to serve you. Present and post-war business opportunities in California command the interest of bankers and executives throughout the country. In the development of their interests in this market many of these men are finding that the unique statewide service of Bank of America offers numerous advantages. Inquiries receive prompt attention.

CAPITAL FUNDS . \$ 166,384,994.51
DEPOSITS . . . 3,498,153,209.87
RESOURCES . . . 3,697,912,674.78
(As of December 31, 1943)

California's statewide bank

Bank of America
NATIONAL TRUST AND SAVINGS ASSOCIATION

Member Federal Deposit Insurance Corporation
Member Federal Reserve System

Main offices in two reserve cities of California... San Francisco - Los Angeles

WHY TIE YOUR MAN-POWER TO APRON STRINGS



When SPEEDI-DRI can do your housekeeping so easily?

SPEEDI-DRI is a white, granular substance that you can spread on oily and greasy floors with your present housecleaning equipment and with the minimum of labor and with no lost-time from production. While it's busy absorbing *all* the oil and grease, it brightens up the plant, improves employee-morale, saves shoes from oil-rot. But SPEEDI-DRI is more than a cleaning compound. It provides an immediate non-skid surface even on the oiliest floors and is so effective for retarding fire (even when it's oil soaked) that many insurance companies recommend its use. Impartial tests and thousands of enthusiastic users prove SPEEDI-DRI's superiority. Write for literature and FREE SAMPLE.

Ask your supplier about the sensational new product—FLIX.

SUPPLIERS: East—Refiners Lubricating Co., New York 1, New York.
Midwest & South—Waverly Petroleum Products Co., Philadelphia 6, Pa.
West Coast—Waverly Petroleum Products Co., Russ Bldg., San Francisco 4, Calif.

SPEEDI-DRI
OIL AND GREASE ABSORBENT



essed from rough green lumber more than 25% of the No. 1 common and lower items they sold (Amendment 3, 2nd Revised Regulation 215.)

Wheat

Mixed wheat will be priced at the "formula price" for red durum wheat if the mixture contains more than 15% of red durum. This OPA ruling changes the formula price for mixed grain to cover mixtures containing less than 50% of wheat; previously, the regulation applied only to mixtures containing more than 50% wheat (Amendment 1, Revised Regulation 487.)

Cotton Insulation Cloth

A ceiling-price formula has been established for fine cotton insulation cloth—newly developed substitute for silk and nylon insulation—for military and industrial purposes. This OPA action sets a margin of 8.45¢ per yd. for finishing fine cotton tubing of weights lighter than 7 yd. to the lb. (Amendment 1, OPA Regulation 358.)

Other Priority Actions

War Food Administration, through Food Distribution Order 29, has announced that restrictions on delivery of crude cottonseed, peanut, soybean, and corn oils to refiners will continue to be suspended through June 30, 1944. . . . By an amendment to FDO 22.5, canners are required to increase from 38% to 41% the quantity of canned grapefruit juice that is to be set aside for government war purposes and from 42% to 48% the quantity of orange juice that is to be set aside.

Other Price Actions

All wooden agricultural containers produced east of the Rockies have been given uniform dollar-and-cents ceilings at producers' levels, averaging 10% above previous ceilings, by OPA's Revised Regulation 520. . . . To stop pyramiding of distributors' markups, OPA has limited, through Amendment 7, Revised Price Schedule 82, maximum prices for wire, cable, and cable accessories on sales by wholesalers and jobbers to industrial, commercial, and government purchasers to 120% of the manufacturer's net price to wholesalers. . . . When producers of hide glues containing imported materials have increased their prices as a result of OPA's action of Jan. 28, 1944, manufacturers who produce adhesives from these hide glues may increase their maximum prices by a like amount, under Amendment 6, Revised Price Schedule 76. . . . Ceilings substantially above 1942 levels are announced in OPA's Regulation 521 for pre-wholesale sales of pitted and macerated domestic dates and date products of the crops of 1943 and later. . . . To encourage production of island twist chewing tobacco, so highly regarded by natives of the Southwest Pacific islands that its use for barter is considered essential to the war effort in that area, this tobacco has been freed from price control by OPA Amendment 51, Revised Supplementary Regulation 1.

Bank Fight Brews

Perennial argument over collection of fees on out-of-town checks forces its way right into Congress for a showdown.

Ever since the Federal Reserve System was founded, banking authorities have been wondering how to handle city banks that try to coax in additional business by absorbing the exchange charges that nonmember banks sometimes make on checks presented for out-of-town payment.

For years, the Federal Reserve Board tried not to force the issue, but last September it decided it had to clamp down. Now, the fight has reached Congress, and the showdown probably will come within the next couple of months.

• **How It Works**—In practice, absorption of exchange is a complicated, highly technical business, but in theory it is fairly simple. The situation stacks up something like this:

The 6,700 Federal Reserve member banks do not charge exchange; that is, they pay the face value of any check presented to them regardless of whether or not this involves transmitting money to some other town. Around 4,700 nonmembers also clear checks at par, but some 2,500 "non-par" banks make a charge for paying checks presented through the mails. These exchange charges are fundamentally different from the service charges that depositors pay on metered accounts, although congressional committees often manage to get the two balled up.

Almost all the non-par banks are located in rural districts, most of them in the South. In 20 states and the District of Columbia, all banks are par banks.

• **Making It Pay**—City banks make no exchange charge, but some of them get into the picture indirectly. Before the Reserve Board cracked down, a city bank that wanted to build up its deposits could promise to pay the exchange charges on checks that country correspondent banks presented to it for collection from non-par banks. In return for this favor, the country banks had to keep a balance with the city bank.

In the typical deal, the city bank would absorb exchange charges up to 1% on the average daily balance that the country correspondent kept with it. Since the city bank could invest the

balance in government bonds for a return of perhaps 14%, it stood to profit on the deal.

• **Roundabout Process**—As a result of this practice, an elaborate system of non-par clearance has been built up in the Southeast, with city banks absorbing most of the charges. A bank in Whistlestop, Ga., receiving a \$1,000 check from one of its depositors drawn on the bank in the neighboring town of Pigtrack, would send it on to its correspondent bank in Chattanooga, Tenn. The Chattanooga bank would credit the Whistlestop bank with \$1,000 but, on presenting the check at Pigtrack, would receive only \$999.

By aggressive use of this technique, some city banks were able to boost their deposits out of all proportion to the increase in their regular commercial business.

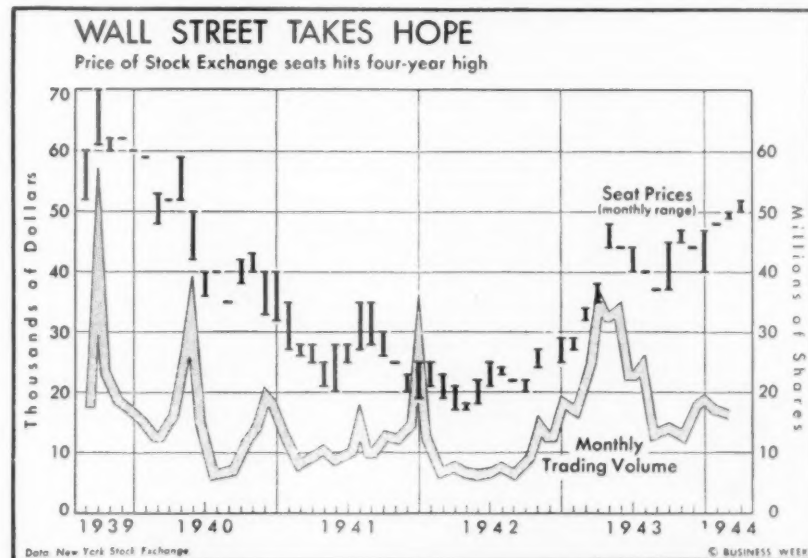
A Lincoln (Neb.) bank—the one that finally precipitated the Reserve Board's ruling—absorbed about \$18,000 in exchange charges during 1942, and increased its correspondent bank balances from \$7,000,000 at the end of 1941 to \$18,000,000 in 1943. Another bank raised its deposits from \$800,000 to

\$8,000,000 in less than a year, over \$6,800,000 of the total representing correspondent bank accounts.

• **What Is Interest?**—Foundation of the Reserve Board's September ruling against absorption of exchange is the Banking Act of 1933, which, among other things, forbids banks to pay interest on demand deposits (an aftermath of the boom-time excesses). In 1935, Congress gave the Reserve Board authority to define what constitutes paying interest, but the board did not use this to clamp down on exchange absorption, largely because it could not get the Federal Deposit Insurance Corp. to apply the same thing to nonmembers.

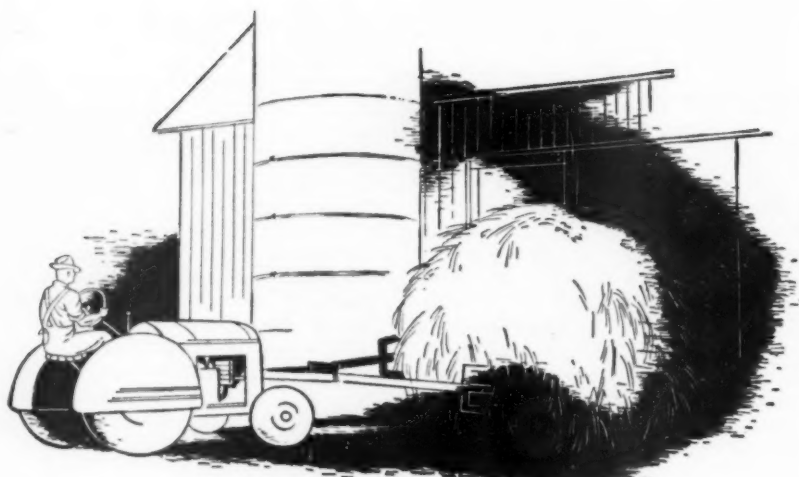
Finally, the Comptroller of the Currency, who has charge of bank examinations, pressed the Reserve Board into giving a yes-or-no answer on exchange absorption, in which the board ruled that absorption of exchange constitutes payment of interest on a demand deposit.

• **Bill Favors Non-Par**—Shortly after, the fight shifted to Congress. Rep. Paul Brown of Georgia put in a bill specifically authorizing banks to absorb exchange regardless of the 1933 act. After much pulling and hauling, with the board on one side and the FDIC teamed with the non-par banks and absorbing banks on the other, Brown's bill slid through the House. It is now waiting



Trading volume has a lot to do with Wall Street's collective disposition, but it doesn't necessarily determine the trend of New York Stock Exchange membership values. The main influence on seat prices is the longer range outlook. Thus, enlarged volume of trading on several occasions between 1939 and 1941 failed to shake

membership quotations out of their long slide. More recently, seats have been climbing on war and postwar prospects, even though volume of trading hasn't really expanded materially. The rise has carried from the low of \$17,000 early in 1942 (a record low since 1897) to the present \$52,000; a new four-year peak.



It will Help FARM MACHINERY TO DO MORE WORK

Everybody works down on the farm... especially in these times. But thanks to machinery the farmer has been aided in his dawn-to-dark chores. After the war, new equipment will do more, better and faster, to make these chores lighter than ever before.

One small thing making a big contribution to increased efficiency and better performance, not only in farm machinery but in most other mechanical automotive equipment and appliances as well, will be the Torrington Needle Bearing.

This small, compact, high capacity anti-friction bearing offers so many advantages in design and in use that manufacturers everywhere were quick to adapt it in hundreds of different applications before the war.

Right now, of course, Torrington Needle Bearings are totally at war, serving in the mechanized equipment of our land, sea and air forces throughout the world. But one day soon you'll find them contributing to the longer life and greater efficiency of the everyday things again... the lawn mower and the washing machine... that new car, truck or tractor... that new printing press and the portable drill.

Torrington Needle Bearings are available in a variety of types and sizes. Now every user of bearings can plan to give his product or equipment the anti-friction advantages which the Needle Bearing offers in combination—



- | | |
|-----------------------|--------------------------|
| 1. Small size | 4. Efficient lubrication |
| 2. Light weight | 5. Ease of installation |
| 3. High load capacity | 6. Low cost |



Preliminary information on types, sizes and ratings, and a list of typical Needle Bearing applications will be found in Catalog No. 119. Write for copy today.

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New York • Boston • Philadelphia • Detroit • Cleveland • Seattle
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TORRINGTON NEEDLE BEARINGS

on the Senate Banking & Currency Committee's calendar.

The Reserve Board and many city banks will put up a last ditch fight before they let the bill go through the Senate. From their viewpoint, the problems of exchange absorption in recent years will be small change compared to the trouble that will arise if the practice gets specific legal sanction.

At present, exchange absorption totals something like \$8,000,000 a year. One official thinks they might run ten times that if banks got outright permission. • **Fair Weather Deposits**—More important, from the standpoint of banking theory, is the fact that exchange absorption tends to build up large, unstable, interbank balances in financial centers. At the first sign of panic, correspondent balances traditionally go flying home, which multiplies the strain on the city banks.

Since most of the correspondent balances now are invested in government bonds, this might help touch off a break in the market, and the faintest thought of that gives any banker chills.

• **Penalty on Membership**—The Reserve Board also is afraid that if exchange absorption becomes general, small member banks would leave the system so they could go on a non-par basis. Its final argument is that country banks would be better off if they sacrificed the income from exchange charges and invested the money they now keep in balances with the absorbing banks.

Curb on Suits

Stockholder litigation in New York state won't be so easy under amendments designed to end flagrant abuses.

The New York State Legislature wasted little time in passing two state corporation statute amendments designed to curb stockholder suit abuses. The abuses were revealed in a recent survey made by a special committee of the state Chamber of Commerce headed by Thomas I. Parkinson, president of the Equitable Life Assurance Society (BW—Mar. 18'44, p. 66). Both measures are expected to be signed.

• **Would Require Bond**—One amendment would ban suits based on charges of a wrongful transaction by directors of a corporation unless the action was instituted by a person who actually held stock in the company at the time of the alleged offense.

The companion amendment would require the plaintiff to file a bond covering all attorney fees and expenses of the

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defendants if the party instituting the action did not hold at least \$50,000 worth, or 5%, of the outstanding stock of the company involved.

Minority Protests—While the amend-
ments were passed by substantial ma-
jorities, a minority group protested on
the ground that the legislation would
deprive the small stockholder of his
day in court and was thus unfair and
discriminatory.

Impressed by Survey—However, the
legislators were more impressed by re-
velations of the survey committee con-
cerning the corner on such litigation in
New York City held by a "limited
group of attorneys" during the 1932-
1942 period under scrutiny.

Another point which helped convince
the legislators was that few of the suing
"stockholders" in that period actually
held enough shares of the corporations
involved to have much personal interest
in the outcome of the actions presum-
ably brought in their behalf.

Underselling Uncle

Banks expect to attract money order trade as postoffice rates go up, since their charges are substantially lower.

The nation's banks are all set to capital-
ize on the increase in postoffice
money order rates, effective Mar. 26.

Banks stand to benefit in two ways:
(1) through larger volume sales of their
own banking money orders; (2) through
greater use, particularly in metropolitan
areas, of their special no-minimum-bal-
ance checking accounts.

To Undersell Uncle Sam—For the first
time, commercial and savings banks will
be able to undersell the Post Office
Dept., not only on money orders for
large remittances, but also on orders
as low as \$2.50.

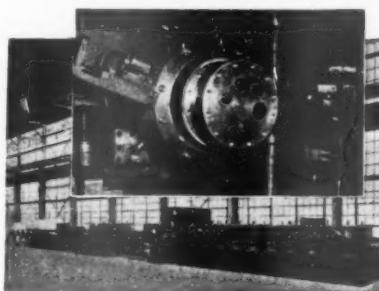
The new postoffice charges run from
10¢ to 37¢ for money orders on sums
up to \$100, instead of the previous
rates of 6¢ to 22¢. Many banks have
been charging 10¢ for orders up to \$50,
with slightly higher rates for sums up
to \$200. Above that figure, 1/10 of 1%
is a typical charge for bank money
orders. Some banks, notably New York
savings institutions, have an even more
advantageous competitive position, with
a flat fee of 10¢ for orders running up
to \$100.

It's Nothing New—Issuance of money
orders isn't new to the banking pro-
fession. Many metropolitan banks have
built up extensive systems of their own
to handle such transactions. Other
banks have at their disposal the money

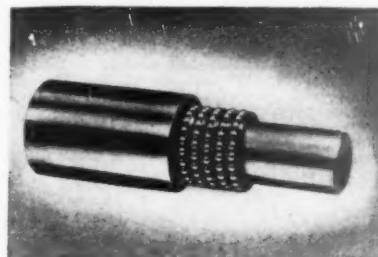
IN THE NEWS WITH TORRINGTON BEARINGS



LEARNING TO FLY WITHOUT LEAVING THE GROUND is not difficult with the "Celestial Navigation Trainer" built by Link Aviation Devices, Inc. A plane "cabin," which serves as the classroom, is mounted on a universal joint, can duplicate the bank, pitch and turn of a plane in flight. A large, 23" diameter ball radial bearing, supplied by Torrington's Bantam Bearings Division, helps support the cabin classroom, enables it to rotate with anti-friction ease and smoothness in response to the pilot's touch on controls. Photo above shows "terrain" as seen from nose of the cabin.



"FROM STRIP TO TUBING" describes the function of this 500 KVA Tube Welding Machine designed and built by The Yoder Company for feeding flat strip steel in, taking finished tubing out. And the main electrode support, shown in inset, rotates on a special 20" O. D. ball radial bearing supplied by Bantam for this "out-of-the-ordinary" application. Anti-friction bearings in every major type and in sizes up to 10 feet in O.D. are supplied by Torrington's Bantam Bearings Division. If you have a difficult or out-of-the-ordinary bearing job, TURN TO TORRINGTON for experienced assistance.



NEW TYPE BALL RECIPROCATING BEARING that offers unusually high capacity is now available. Designed by engineers at the Bantam Bearings Division of The Torrington Company, this new anti-friction unit has a "spirally wound" retaining cage containing a full complement of balls over a long axial distance, and provides more than double the contact heretofore available in a reciprocating bearing. Many new applications for this new bearing are anticipated. It is another example of the progressive thinking which goes into the design and manufacture of all Torrington Bearings.

IN YOUR PLANS FOR FUTURE DESIGNS the experience of Torrington engineers in working with all major types of anti-friction bearings—straight roller, tapered roller, needle and ball—is on call to aid your own engineers in utilizing the latest developments and improvements in bearing design. We will welcome the opportunity to help in any problem of bearing selection. Join the TURN TO TORRINGTON for your bearing needs.



TORRINGTON BEARINGS

STRAIGHT ROLLER • TAPERED ROLLER • NEEDLE • BALL

THE TORRINGTON COMPANY • BANTAM BEARINGS DIVISION

SOUTH BEND 21, INDIANA



LOEW'S INCORPORATED

"THEATRES EVERYWHERE"

March 9, 1944

THE Board of Directors on March 8th, 1944 declared a dividend at the rate of 50¢ per share on the outstanding Common Stock of this Company, payable on the 31st day of March, 1944 to stockholders of record at the close of business on the 23rd day of March, 1944. Checks will be mailed.

DAVID BERNSTEIN,
Vice President & Treasurer

HELPING TO WIN THE WAR

PATRIOTIC ADVERTISING SPECIALTIES

Help maintain civilian morale and improve your business at the same time. Place your name before your customers with Exclusive Art Calendars, Gift Leather, Billboards, Freedom Wallets, Diaries, Mechanical Pencils, Safety First Cases, Novelty Key Cases, countless other items. Inexpensive, resultful.

ADVERTISERS PUBLISHING CO.
Dept. BW-8, Ann Arbor, Mich. (Salesmen Wanted)

WRITE TODAY FOR FREE SAMPLES

EXECUTIVE WITH \$10,000

to invest. Desires to organize and finance or head up an established sales force in Chicago Illinois District, to handle line or lines with post war future. Age 45. Engineering Graduate.

Address BO-373, Business Week
520 N. Michigan Ave., Chicago 11, Ill.

Identity Established!



A card, a countersign or an introduction; then reluctant, baffling doors open with a welcome. Are the indifferent doors of consumer acceptance opened for your products by the identification they bear? Put your name on your product, dress it up for market, make it welcome. Kaumagraph Dry Transfers put trademarks, any lettering or design on textiles, rubber, leather and synthetics by the touch of a hot iron. Prestomark Labels may be the answer to reduced labeling costs. Tell us your problem—get the economical, efficient Kaumagraph answer.



Identification Headquarters since 1902

KAUMAGRAPH

KAUMAGRAPH CO., 1319 POPLAR ST., WILMINGTON, DEL.
NEW YORK OFFICE • EMPIRE STATE BUILDING, N.Y. 1

order system devised some years ago by the American Bankers Assn.

Savings banks have been active in the money order field. The New York State Savings Bank Assn., for example, adopted a uniform money order system for the use of its members several years ago. The plan is used now by 40 members, having 70 branches, and sales of individual orders recently have been running around 30,000 monthly.

• **Small Sums Involved**—The big business in money orders has always involved small sums, since many people without checking accounts have used the postoffice as a medium for paying such household expenses as the monthly bills for gas and electricity.

But the monopoly long held by the postoffice on the small money orders now seems about ended. Banks will be able to advertise savings over postoffice rates—from 4¢ on a \$5 order to 9¢ on only a \$10 order. Bankers will be surprised if this factor doesn't generate a substantial increase in their money order business.

• **The Check Plan Grows**—Commercial banks, however, expect that even greater expansion will be shown in their special no-minimum-balance checking accounts, which have become increasingly popular because of the service charges being levied by many institutions on personal checking accounts.

For pay-as-you-go checking accounts, some banks charge 7½¢ or 10¢ per check and make no levy on deposits. Others charge a flat 5¢ fee for each deposit and withdrawal. But all can now offer to most present users of Uncle Sam's money transfer system the opportunity of substantially lower costs.

Some of the larger banks are considering increasing their advertising budgets to provide wider promotion for their money order and special checking account facilities.

• **Some Hesitation**—Although bankers see considerable new business potentialities in this field, personnel problems may slow down any ambitious expansion program. At least one large New York bank has hesitated to seek this type of business, because of manpower difficulties. Too large a rise in demands on such facilities might not be worthwhile during a tight labor market.

Some bankers have been wondering, too, about the possible reaction of the Post Office Dept. to any concerted drive to take over the bulk of the money order business. Washington has reported no resentment as yet, however.

However, the American Banker suggests that bankers fearing to offend the local postmaster might remember that he, too, has manpower troubles. Therefore, the campaign for money or-

AVISO

Vendemos oro afinado en barras, en cantidades ilimitadas, a

\$5,520.00

el kilogramo en nuestras oficinas de MEXICO, D. F.; GUADALAJARA, Jal.; MAZATLAN, Sin.; MONTERREY, N. L.; MERIDA, Yuc. y TORREON, Coah.

México, D. F., 12 de Febrero de 1944.

BANCO DE MEXICO, S. A.

GOLD FOR PAPER

With practically every country in the world keeping its gold under national lock and key to prevent hoarding, Mexico does a complete reverse in an effort to slow inflation. In a full-page insertion in all Mexican newspapers, the Banco de Mexico (bank of issue) encourages hoarding by offering unlimited quantities of gold at 5,520 pesos a kilogram—equivalent to the U. S. rate of \$35 an ounce.

der business could be coupled with the idea that use of bank facilities, according to the bank publications, would reduce the burden on the postoffice and save time and money for the public.

SEC O.K.'S STOCK PLAN

The Securities & Exchange Commission has just approved the recently proposed Cities Service Power & Light Co. plan (BW-Jan. 1'44, p94) to retire all publicly held bonds and preferred stock with proceeds of a bank loan and recapitalize on a single stock basis to comply with the holding company act.

However, approval was made contingent on the surrender of all Cities Service P.&L. securities bought by officers or directors of the company and its parent, Cities Service Co., since the former's registration under the act.

This restriction was made, according to SEC, because some of these purchases were made at a time "when it may have been reasonable to anticipate a reorganization or recapitalization . . . at prices substantially below the amounts now to be paid for the securities." Proceeds from such holdings are to be held until SEC determines their disposition.



Why does the Navy
cook in STEEL?

Because you can't beat
STEEL for durability!



When you want things to last... use steel. War or peace. Steels are more durable today than ever. Stronger. Tougher. Improved by wartime research. Ready to serve you when peace comes. In kitchen ware and automobiles. Bedsprings and window frames. Many of these new steels have come from 174 U. S. Steel laboratories. Products made from them will carry the U-S-S Label. Look for it. It means *quality* steel.

UNITED STATES STEEL

• AMERICAN BRIDGE COMPANY • AMERICAN STEEL & WIRE COMPANY •
CARNEGIE-ILLINOIS STEEL CORPORATION • COLUMBIA STEEL COMPANY
• CYCLONE FENCE DIVISION • FEDERAL SHIPBUILDING & DRY DOCK
COMPANY • NATIONAL TUBE COMPANY • OIL WELL SUPPLY COMPANY •
TENNESSEE COAL, IRON & RAILROAD COMPANY • TUBULAR ALLOY STEEL
CORPORATION • UNITED STATES STEEL EXPORT COMPANY • UNITED STATES
STEEL PRODUCTS COMPANY • UNITED STATES STEEL SUPPLY COMPANY
UNIVERSAL ATLAS CEMENT COMPANY • VIRGINIA BRIDGE COMPANY

IT'S THE *Men* WHO MAKE THE *Erie*



Long hours . . . shortage of materials . . . lack of manpower . . . have not prevented the men of Erie and other American Railroads from solving the greatest transportation problem in all history.

And full credit should be given railroad men for their fine spirit of cooperation—their loyalty—their willingness to see the job through.

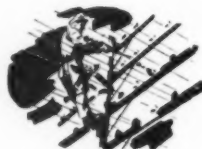
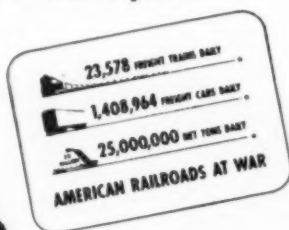
For it is these qualities in its men that made it possible for Erie to establish a new all-time record of 15 billion ton-miles last year, an increase of 26.4% over 1942 and 40% over 1941.

It is these qualities that enabled Erie to reach a new high record of average daily movement of freight cars.

It is these qualities that give good service to shippers and travelers at times when demands for transportation reach unprecedented new heights.

It is the *men* who make the Erie.

And these men will continue to give America the world's finest and most economical transportation in war or peace.



Erie Railroad

ONE OF AMERICA'S RAILROADS—ALL UNITED FOR VICTORY

Buy War Bonds and Stamps

MARKETING

Points for Shoes

Low-price retailers may seek change from unit rationing to organize to carry on campaign for revision of pricing regulations.

Ever since shoe rationing began more than a year ago, retailers of low-priced shoes have been increasingly dependent on nonrationed footwear to maintain their sales volume, because many customers now prefer to use their shoe coupons for higher-priced lines.

• **Distributors Organize**—Last week representatives of the country's leading shoe store chains and other retail shoe dealers joined forces for their mutual benefit by organizing the National Association of Popular Price Shoe Retailers, Inc.

The 38 charter members include almost every large-scale distributor handling shoes that retail at less than \$4.25 and claim to represent a combined annual sales volume of \$400,000,000 of the total U. S. retail shoe sales. Only a few of the members are manufacturers as well as retailers—90% of their shoes in the open market.

War Production Board figures compiled from manufacturers' reports indicate that 61% of all U. S. production of women's shoes is sold for less than \$2.50 wholesale, or \$5 retail; 69% of men's shoes are sold for less than \$2 wholesale, or \$7 retail.

• **The Officers**—President of the association is I. M. Kay (Berland Shoe Stores, Inc., St. Louis). Other officers include David W. Herrmann (Mills Shoes, New York); J. O. Moore (Mills Jones Co., Columbus, Ohio); and George Smith (G. R. Kinney & Co., New York).

Edward Atkins, formerly footwear news editor of Women's Wear Daily, was appointed managing director, with headquarters in New York.

• **Markup Problem**—Of immediate concern to the association are recent government rulings it considers prejudicial to unrationed shoes, which this spring are expected to represent 50% to 75% of total retail shoe volume in the less-than-\$4 group.

One of these requires dealers to calculate markups separately on every line instead of averaging them to achieve a specified price line. For example, a dealer operating on a 40% markup might put in his \$2.79 price line a pair of shoes purchased at prices ranging between \$1.90 and \$2.10. On the \$2.10

of course, he didn't make his average, but this loss was offset by the more-than-40% collected on the shoes purchased at less than \$2. Now, under the new OPA regulations, the dealer will lose that offset. The shoes purchased at prices ranging from \$1.90 to \$2 cannot be sold in the \$2.79 price range. They will have to be sold at \$2.69 to \$2.59, for example. Either that, or the dealer will have to mark up all shoes an exact 40%; this would mean that he will have 20 or 30 retail prices, and thus he would lose the merchandising ability of his accepted prices lines.

Another irksome government ruling permits the manufacture of rationed shoes (leather or rubber soles) with two-toned uppers containing not more than 40% leather, while makers of unrationed shoes cannot produce these "spectator" types, with or without leather.

Study Point Rationing—The association's long-range objective is to study the effects of unit shoe rationing and eventually to push for a more equitable system—probably point rationing.

Members claim that their sales dropped about 25% in 1943, from more than \$100 million in 1942, while shoe sales of department stores and independents selling higher priced lines gained comparably. Association members claim that their loss would have been more like 75% if it had not been for unrationed shoes.

The inequities of unit rationing, association members insist, were proved by the rationing "holiday" permitted by OPA three months ago (BW—Jan. 8 '44, p. 570) when dealers could sell rationed shoes retailing at \$3 or less coupon-free for a twelve-day period, in order to dispose of accumulated stocks.

Television Feud

NBC asks for channel in Chicago now assigned to Zenith, and warfare is renewed in fight that started back in 1939.

That old feud between Com. E. F. McDonald, Jr., president of Zenith Radio Corp., and the rest of the infant television industry has flared up again. The National Broadcasting Co. has applied to the Federal Communications Commission for Chicago television channel No. 1, on which Zenith has been telecasting since Mar. 30, 1939.

Preliminary Step—NBC's request was a preliminary step in its recently announced plans for postwar nation-wide television coverage, starting with three regional networks (BW—Mar. 11 '44, p. 51). Obvious reason for coveting the

Modern Gas heating
is a MACHINE TOOL!



It fits right into the production line and is "tailor-made" for the job

Hand in hand with metallurgical advances has come the science of Gas heat-treating, which today is used in industry as a precision machine tool—part of the inline production process. No longer is it a separate, remote operation.

Modern heat-treating furnaces were born in World War I, grew up in the twenties and thirties and matured in World War II. Three years of production of complex war materials have brought about major changes in equipment for Gas heat-treating which have built this necessary operation right into the production line, have afforded new

techniques for heat application to limited surfaces, and have carried the science of heat application to a new high.

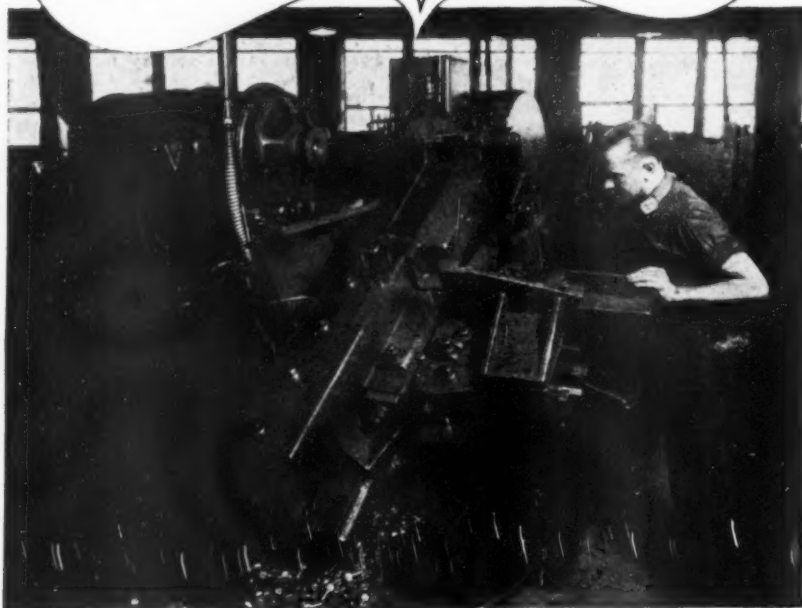
That's why every industrial man concerned with heat-treating should keep up-to-date on the present-day techniques of Gas heat-treating . . . for they will be vital to industry after the war. Ask the industrial Gas engineer of your Gas company for information on these techniques.

AMERICAN GAS ASSOCIATION
INDUSTRIAL AND COMMERCIAL
GAS SECTION
420 LEXINGTON AVE., NEW YORK 17, N. Y.

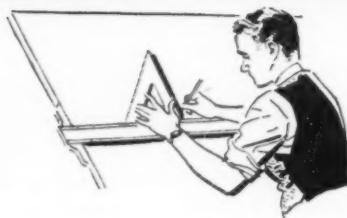
THE TREND IS TO GAS

FOR ALL
INDUSTRIAL HEATING

Better Fasteners for you— Today and Tomorrow



—because of **OLIVER'S** Modern Equipment



Heat-treating, zinc plating, galvanizing and other "special" processing required in the manufacture of industrial fasteners are everyday operations at Oliver, where furnaces, machinery and other equipment of the most modern types produce uniform, high quality work. Furthermore, Oliver engi-

neers know when and where to recommend the use of alloys, special processing or special designs to get the results you want.

Fasteners are extremely important—and properly specified and made, they serve dependably and economically. Let Oliver help you solve your fasteners problems.

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SOUTH TENTH AND MURIEL STREETS · PITTSBURGH, PA.

No. 1 channel is that the lower frequencies permit somewhat better reception on home sets.

The only other license holder in the Chicago area is Balaban & Katz Company, theater owners, now telecasting 64 hours a week to an estimated 400 viewers, but not selling time.

• **Zenith Aloof**—McDonald's feud with the rest of the industry dates back to 1939 when McDonald said: "Zenith is ready but television is not." At that time, NBC and other telecasters staged elaborate television campaigns centering around the New York World's Fair and six companies offered television receiving sets to the public (BW-Mar. 25 '39, p. 46). Zenith remained aloof, and still maintains that television is as yet economically unsound for lack of an adequate box office to pay high transmission costs that far exceed the rates charged advertisers.

Coaxial's Rival?

A.T.&T. asks FCC approval of New York-Boston radio relay system for comparison with cables for phone and television.

American Telephone & Telegraph Company has disclosed that it is seeking approval of the Federal Communications Commission on the proposed installation of six experimental radio relay stations to link New York, Boston, and intermediate points by an all-air, two-way route for television programs and long distance telephone messages.

• **Tests Planned**—Underlying the concept of the installation, which would take two years and, according to the company, more than \$2,000,000 to complete, is a desire to "determine by practical operation in commercial service the relative advantages and disadvantages of radio relay transmission of long distance messages and television programs compared with transmission by the familiar wires and cables and recently developed coaxial cables"—a comparison which would be made possible by the New York-Boston coaxial, which is already scheduled for 1946 installation as a part of the Bell System's recently announced 6,000-mile coaxial program (BW-Mar. 11 '44, p. 91).

The six stations would be spaced at an average of about 30 miles apart to relay directed beams of ultrahigh-frequency radiation (which does not follow the earth's curvature and seldom reaches effectively beyond the horizon) from one to another.

• **U. S. World Radio**—Just a day or two before the A.T.&T. announcement,

certain government radio engineers launched a "trial balloon" from Washington to get public reaction on their proposal for a "radio trunk line" for international communication that would be made up of eight powerful relay stations girdling the globe at a latitude about 20 degrees north of the equator—theoretically far enough away from the latter to get away from tropical dampness which raises hob with electrical equipment, yet far enough south to avoid polar magnetic disturbances, the bane of radio transmission.

Tentative station locations are: San Juan, Puerto Rico; Tenerife, Canary Islands; Alexandria, Egypt; Bombay, India; Hong Kong, China; Guam; Honolulu, H. I.; and Mexico City, Mexico.

• **Proposed Routings**—Overseas phone calls and radiograms from the eastern sections of the U. S. and Canada for London or Paris would go via high-powered stations in New York, Miami, or New Orleans, through Puerto Rico and the Canaries to destination; calls from the western sections would be beamed via San Francisco to Mexico City, or via New Orleans to Puerto Rico; calls from Santiago, Chile, would go via Mexico City; those from Rio de Janeiro, via the Canaries; calls from Berlin or Moscow would go via Egypt.

Experts of the FCC believe the big plan to be technically possible in the present state of the radio art. Yet to be heard from are the diplomats and financiers whose services would have to be called upon before the trunk line could become a postwar actuality.

Eager for Planes

Buyers snap up 225 of first 1,100 used aircraft offered by War Training Service, but few bids reach OPA ceiling prices.

By last week end, War Training Service had sold to bidders about 225 of 1,100 used trainer planes recently declared surplus (BW—Feb. 26 '44, p. 34).

Officials of WTS (a revised name for the Civil Aeronautics Administration's civil pilot training program) say the demand in this biggest yet of all used plane offerings is brisk although few bids are up to OPA ceilings.

• **5,000 to Be Sold**—WTS contracts for and supervises the preliminary training of student pilots for Army and Navy Air Forces by private aircraft operators.

The 1,100 surplus planes are part of 5,000 purchased from private owners a year ago by Defense Plant Corp. and lent to the operators without charge.

DPC is selling the planes now because

"Here's a way to chase those PAYROLL POSTING BLUES!"



— A TODD PAYROLL SYSTEM cuts the work in half

Smart girl! Her eyes seldom miss ideas her employer can use. Now she can tell him how a Todd Payroll System will cure payroll record headaches.

Here are her notes to brighten his morning: "Todd Payroll Systems cut payroll posting time 50% or more. Any clerk can post the employee statement, payroll sheet and earnings record all at once. Each figure is the same on all three forms — so actual earnings and payroll records are always in balance. The facts that seven Government agencies require are

right at hand without extra work or worry, so reports are easily prepared on time. Since there is no large investment for equipment, can we afford not to look into this?"

Can you?

CUSTOMERS' COMMENTS:

■ "During a period in which the number of our employees has tripled, we have been able to prepare our payrolls more accurately and efficiently with your systems. The saving in time has been invaluable."

The Pan American World Airways

■ "At present we have 145 employees on our payroll and we estimate that with your System, we are saving at least 60% of the time formerly consumed in making up the payroll."

Solar Corporation, Milwaukee, Wisconsin



This Coupon Can Save Worry

THE TODD COMPANY, INC., ROCHESTER 3, N.Y.

Please give me the facts about Todd Payroll Systems—without obligation, of course.

Company: _____

Address: _____

City: _____ State: _____

By: _____

BW 3-25-44



WHIZ FLOOR PRIMER AND CLEANER

*Strips and
Restores Surfaces*

WHIZ Floor Primer and Cleaner removes imbedded dirt and wax from wood, linoleum, rubber, asphalt, cork, terrazzo, and concrete floors—desk tops, table tops, metal furniture, venetian blinds, woodwork, etc. Truly a remarkable cleaner and pre-wax treatment.

A real labor saver—cleans chemically without scrubbing. Just spread over surface, let stand few minutes, rinse off. Penetrates pores, flushes out imbedded dirt and grime. Wax base acts as filler, seals openings, becomes a binder between surface and next wax treatment. Write R. M. Hollingshead Corp., Camden, N. J., for name of nearest distributor.



Liquid and Powdered Hand Soaps • Protective Hand Cream • Scrubbing Soaps • Cleaners • Floor Waxes (Heavy Duty and Self-Polishing, Liquid Oil Base and Paste) • Disinfectants • Odorless and Concentrated Insecticides • Furniture and Metal Polishes • Drain Pipe and Bowl Cleaner • Ho-zof De-greasing Compound • Hydraulic Fluids • Rust Preventives.



BUY MORE BONDS

Army and Navy are dispensing with civilian training facilities. All 5,000 DPC planes eventually will be sold. Transactions are made through the seven field offices of CAA.

• **Wide Price Range**—The wide range of prices offered for a given plane (sometimes as wide as \$400 to \$4,000) means nothing except that boys who have \$400 would like to buy a good plane with it and figure that it does no harm to try.

The few ceiling price bids received are mostly from persons who thus assure themselves of recapturing the same planes they sold to DPC. The ceiling price is the price paid by DPC less depreciation for the period of the government's possession at 8% a year which is figured on the price of the plane when new.

• **Condition of Planes**—In many cases, former owners who buy their old planes back find the planes in better condition than they were when turned over to DPC, because of good maintenance by the contractors under regular CAA inspection.

Statistics have not been assembled as yet, but CAA officials observe that demand for the planes is better inland than it is on the coasts, where private flying is still under restrictions, continued for security reasons.

Many of the bidders, however, are trying to obtain enough equipment to go into charter, contract, and other forms of fixed-base operations. There is little disposition on the part of pilots to wait for new postwar designs.

Petrillo Scores

Musicians win pay rise and jurisdiction over turntable operators in New York contract with four major networks.

Notwithstanding the widely heralded "setback" which James C. Petrillo, president of the American Federation of Musicians, received at the hands of the National War Labor Board's tripartite panel this month (BW-Mar. 18 '44, p107), his various local unions are enjoying business as usual.

• **15% Pay Raise**—The four major networks last week agreed to union demands for maximum wage increases allowed by the Little Steel formula in negotiating a three-year contract with New York Local 802.

The boost raises network staff musicians who work five out of eight hours daily on sustaining programs from \$120 to \$126.50 weekly, rounding out a 15% increase over the \$110 scale in effect Jan. 1, 1944. Little Steel base date. Musicians who work longer hours on commercial programs will receive proportionately higher pay. The new contract also increases musicians' pay for one-time engagements, but rehearsal rates remain the same.

There will be no increase in the number of network staff musicians, despite the fact that negotiation of similar con-



PRIVATE STOCK

As in the days when barber shops featured individual shaving mugs for steady customers, a Chicago lunch room now stocks personal bottles of

catchup. All the customer has to do is bring in his own supply which is labeled and kept handy for his call. It's a smart trick for saving ration points, recently boosted on catchup, and for building continued patronage.

They Wrap Up Thunderbolts

... and Haul Them on **TRUCK-TRAILERS**



Dade Brothers, Inc., have one of the toughest packaging and delivery jobs you ever heard of. They package and ship Thunderbolts . . . and nearly every other type of plane that can't safely be flown to the battle areas.

The preparation of these costly machines-of-war for shipment is a precise engineering job. But actually the most difficult task is transporting the huge loads to the ship-side . . . usually many miles away and through congested metropolitan traffic.

Truck-Trailers were the answer for Dade Brothers. In fact, there's no other transport method remotely practical for this work, Dade officials will tell you.

The Dade experience is typical of thousands of others in more than 100 lines of business . . . where Truck-Trailers are doing work that couldn't be done as well, if at all, by any other method. America could not get along without them.

World's Largest Builders of Truck-Trailers

FRUEHAUF TRAILER COMPANY
DETROIT, MICHIGAN

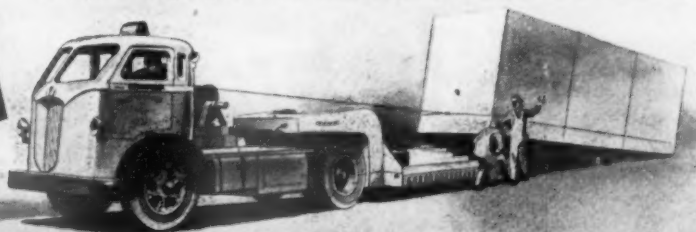
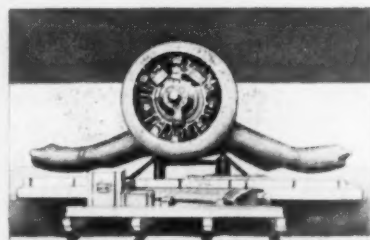
Service In All Principal Cities



Dade Brothers, Inc., are technical advisers to the Army Air Forces Materiel Command. Airplanes prepared by them for export shipment are so mounted that the stress and strain centers are exactly the same as those encountered in flight and landing. If the cases are tipped on end, or overturned, the planes will still not touch the cases except at the mounting points.

Right—A Vought "Corsair" being readied for travel to the battle zone. Wing-buttis have been weather-sealed and the fuselage mounted on the floor-stringer of the export case.

Below—High speed automatic winches on the Truck-Trailers help get the cases aboard ship quickly and safely. These precious cargoes are handled as if they were fragile glassware.



Back the Attack!

FRUEHAUF Trailers

"Engineered Transportation"

REG. U. S. PAT. OFF.

Buy

War Bonds!

IT CAN PULL MORE THAN IT CAN CARRY

TRUCK-TRAILER TRANSPORT IS DOING AN ESSENTIAL JOB FOR ALL AMERICA



the song of motors in the sky

This stern, resonant chant of American will-to-win is the battle hymn of courageous young men meeting death and the homing song for a mission accomplished. Its notes come from millions of Americans in thousands of plants throughout the nation. And the Allen organization contributes some of them. As the demands of war are relinquished, the entire Allen production capacities will be re-directed to making dependable business machines.



R.C. Allen Business Machines

ALLEN CALCULATORS, INCORPORATED
678 FRONT AVE. N. W. GRAND RAPIDS, MICH.

Makers of World Renowned Business Machines

10-Key Calculators • Portable and Standard Adding Machines • Bookkeeping Machines • Cash Registers
Statement Machines • All-Purpose Office Machines • Electric or Hand Operated

For Correct Selection of Proper Molding Materials

Call on **AMERICA'S PIONEER
CUSTOM INJECTION MOLDER**



With a large number of different molding materials available today, a thorough knowledge of their advantages and limitations is of extreme importance. Our years of practical experience as a custom molder, plus keeping up to date on all available materials, places us in an excellent position to make unbiased and sound recommendations as to the molding material best suited to your particular application.

Send FOR OUR LATEST ILLUSTRATED BULLETIN
It Contains Information On

- **ENGINEERING AND PRODUCT DESIGN**
- **FINISHED PRODUCTS**
—coloring, stamping and other finishing.
- **ADAPTABILITY**
—replacement for other materials.

BULLETIN IS FREE

We invite you to consult with our engineers on any plastics problem confronting you. There is no obligation.



Plastics Division
ERIC RESISTOR CORPORATION, ERIE, PA.

tracts with the Chicago local resulted in additions to network musician staff there (BW—Mar. 11'44, p88).

• **New Jurisdiction**—The new contract provides that turntable operators must be A.F.M. members with weekly salaries of \$50 to \$70. The job of handling recordings is currently done by the technicians, organized in the National Assn. of Broadcast Engineers & Technicians, an independent union, at the National Broadcasting Co., Mutual Broadcasting System, and Blue Network studios.

N.A.B.E.T. has announced its intention to regain jurisdiction over NBC's Chicago studio turntables which it allowed the musicians' union to take over in a previous contract.

• **No Objection**—The musicians anticipate no objection from Columbia Broadcasting System technicians, however, since they belong to the A.F.L. International Brotherhood of Electrical Workers, which for some years has been abiding by the decision of William Green, A.F.L. president, that turntables are within the province of the musicians.

INDUSTRY'S WAR ADS

The War Advertising Council rang up another record this week when it announced that industry's advertising contributions in magazines, newspapers, radio, and other media last year totaled \$352,650,000—equivalent to the expenditures of the 700 national advertisers who were top spenders in 1943.

Except for 7% not broken down into specific campaign themes, here is how contributions were divided among major home front campaigns:

War bonds	\$88,840,500
Food	46,586,704
Conservation	38,927,100
Armed services	30,835,335
Manpower	21,633,702
Anti-inflation	11,304,804
National war fund	10,899,591
Red Cross	10,616,014
Don't travel	8,802,898
Civilian services	4,719,624
Information security	392,828
Housing	182,675
Forest fire	127,874
Miscellaneous	53,920,455

CITY GETS ILLEGAL TAX

About 600 Denver milk retailers have been ordered by District Judge Joseph J. Walsh to turn over to the city the unclaimed proceeds of Denver's illegal 26-a-quart milk tax.

Late in 1943, the levy was collected from consumers for a six-week period to get around OPA ceilings and to give producers the benefit of a price rise. The tax was ruled invalid by Judge Walsh (BW—Jan. 15'44, p107).

C. R. Milliken, Denver grocer, who

held \$179.74 in unclaimed milk tax, sued to prevent the city from taking it. Judge Walsh overruled the grocer's contention that, if the tax were illegal, the city couldn't accept it and thus profit from its own illegal acts. Judge Walsh ordered retailers to pay the tax to the city quickly, on penalty of contempt citation.

The city expects to collect about \$20,000, representing tax pennies taken in over the retail counters and never claimed by the consumers.

MILK CONTAINER TRUCE

Chicago's city council has passed an ordinance legalizing use of paper milk containers, but a last-minute amendment restricted their use to the duration and six months.

This means a truce in the long fight between the city and dairies (BW—Mar.18'39,p14). In December, 1942, the Dean Milk Co. obtained an injunction restraining the city from interfering with use of the containers. Eleven major Chicago milk distributors, who handle more than 60% of the city's milk business, now are using paper containers.

Dean's attempt to make the injunction permanent failed recently when the Illinois Supreme Court held that paper containers are illegal because a city ordinance provided that milk be delivered "in standard milk bottles." An appeal stayed the immediate effect of this ruling and permitted continued use of the paper containers while the council considers the new ordinance.

BID FOR SEED SALES

With farm machinery sales limited, Montgomery Ward & Co. is making a bid for the farmer's dollar by offering cottonseed for planting purposes in its Cotton Belt stores.

These field planting seed are sold for cash, monthly payment plan, or on a crop mortgage.

Although Ward and other large companies bidding for farm business have sold garden and flower seed, shrubbery and plants, this latest venture is an item of particular concern to feed store operators.

STATUS QUO PREFERRED

Whenever WPB offers to ease restrictions, most industries jump at the chance.

Recently, however, the umbrella manufacturers told WPB they didn't want specifications relaxed until they get more steel.

The industry, which is held down to 38% of 1941 output under Limitation

NEW WORLDS TO CONQUER

The return of Peace will signalize the opening of a vast new era of Air Transportation, in which the whole World will become unified.

Distances will be reduced to all corners of the Globe. Travel to Europe, Africa, South America and the Orient will be as commonplace by Air as travel by train has been at home. The rich resources of the whole World will be opened to commerce as they have never been before.

Business and Professional men, Sportsman fliers and tourists—all will share in the benefits of the speedy transportation of the post-war era. Veteran War Pilots will turn, with enthusiasm, to Peacetime flying. Commuting by Air will rapidly take its place with that by automobile.

Jacobs Engines—now powering thousands of Advanced Trainers and Personnel Transports in the Air Forces of the United Nations—will, after the War, be powering Commercial and Private Planes—conquering the "New Worlds" of Transportation.

JACOBS

AIRCRAFT

Engines

POFFSTOWN PENNSYLVANIA U.S.A.

This, too, is YORK HEAT



The LAUNDRY Goes Rolling Along

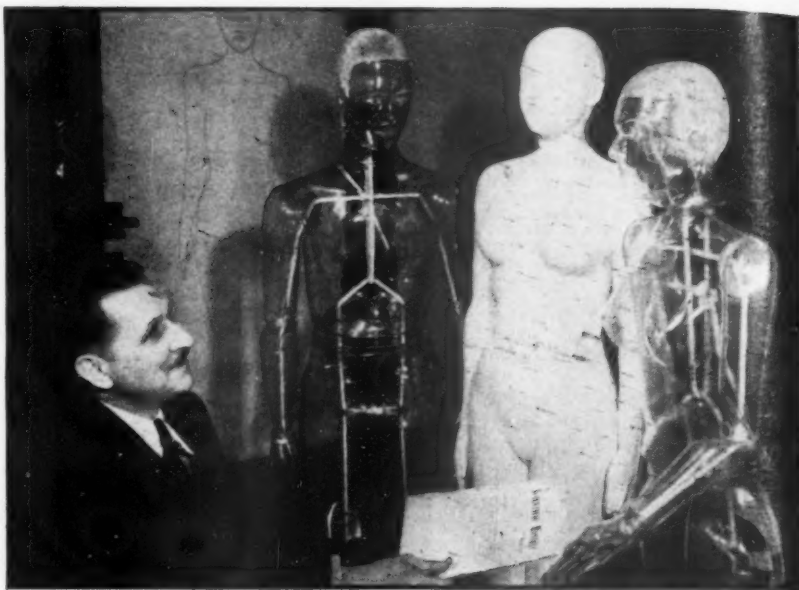
YORK Oil-Burner applications, on portable laundry units for the Army, have solved one of the soldier's most harassing problems. One might call them the caissons of morale.

The application of an oil-burner to the boiler specified, was no mean feat, but York engineers took the job in their stride. They have the persistence and the know-how, to stay with the tough ones until they're licked. That's why York heating equipment has always been more efficient and dependable. That's how the basic soundness of their design is being perfected by the grueling tests of war.

When peace-time production is resumed, you will do well to consider the manifest advantages of heating equipment by York . . . a pioneer in the oil-burner field, which has not rested on its laurels.

YORK HEAT

Division of
YORK-SHIPLEY, INC.
York, Pa.



COMPOSITE LADIES

Of importance to postwar industrial and fashion designers are transparent manikins being produced by the General Plastics Corp., Chicago, from average measurements of members of Army Air Forces' women's units. Facing G. W. Borkland, company head, is

the average—Type A—female figure (64.9 in. tall). It will be used in conjunction with the taller Type C plaster model, and a shorter manikin (not shown) for the scientific designing of women's military clothing and equipment. The male figure, also made of cellulose acetate, is the average-sized airman (BW—Oct. 16 '43, p20).

Order L-36, also is limited to the use of only ten 20-inch ribs in women's umbrellas, eight 25-inch ribs in men's. Expanded specifications would permit manufacturers to make 16-rib prewar models, as well as a wider variety of styles.

Manufacturers, who previously had applied to WPB for an increased steel quota to permit operations at 50% of the 1941 output (lack of manpower prevents higher operations), told WPB last week it would not be feasible to expand styles until production is back to at least 75% of the prewar base. While production is limited, frame manufacturers and umbrella fabricators prefer to operate under the standardization and simplification imposed by WPB specifications (BW—Feb. 6 '43, p30).

Frame manufacturers believe that if they applied to OPA for a higher ceiling on fancier models, they would have trouble getting it.

P. S.

As straight war theme copy begins to reach the saturation point, more and more advertising of postwar products appears in consumer media. Examples: Taylor Instrument Co. (which makes

thermometers used in processing plastics) talks about illuminated plastic floors, plastic dishes. Crown Closure Co. uses Soglow cartoons to promote postwar fasteners which will zip in both directions and around sharp corners. United Air Lines announces its 50-passenger planes that will cross the country in eleven hours; refrigerator manufacturers tout the deep-freeze compartments in projected models. . . . The Birmingham (Ala.) Gas Co. has come forth with its own version of the Nugent plan (BW—Jul. 18 '42, p67) under which consumers may buy war bonds now, file them with the company for a priority on a postwar stove or refrigerator. Hartford, Conn., Detroit, and other cities have tried it without too much success—say retailers—because manufacturers don't like the plan. They don't want to be committed to delivery of their first postwar models to priority customers. . . . Albert Frank—Guenther Law, Inc., Manhattan advertising agency, believes in radio advertising not only for its clients, but for itself. The agency now sponsors the Symphony Hall program (8 to 9 p.m.) over WQXR—New York station specializing in classical music—and takes time to expound the value of advertising in general, its own in particular.



The button that puts the bee on bullets

Like a football player, the plane plows through a field of enemy fire. Scores of sights have just one aim . . . to send it down aflame.

By all the rights of old air warfare, that barrage should have an easy task. Bullets . . . piercing a vulnerable point . . . plus leaky oil or gas fumes, spell fire. But now . . . by the press of a button . . . their fiery sting is stopped.

The "secret" is something you will recall from your chemistry class. Carbon dioxide . . . released by the pilot . . . floods the air in the engine housing, creating an atmosphere in

which nothing can be ignited . . . not even by Axis incendiaries!

Carbon dioxide has been called the "watch-dog" of this war, and rightly so. It safeguards against fire not only planes, but ships . . . stands watch in war plants . . . inflates the "Mae Wests" and rubber life rafts that have rescued so many . . . preserves foods, helps in processing medicines and testing military equipment.

The CO₂ gas in a plane over Berlin and in the raft that carries a sailor to safety may have begun its days at Wyandotte, where the world's largest

plant is speeding the supply of *dry ice* . . . the substance which is later liquefied into carbon dioxide. From Wyandotte Chemicals Corporation come many other products, too, that play vital roles for Victory. "Watch-dogs" and weapons now, they will contribute toward your well-being tomorrow.



Wyandotte
REG. U. S. PAT. OFF.

OFFICES IN PRINCIPAL CITIES

WYANDOTTE CHEMICALS CORPORATION — WYANDOTTE, MICHIGAN

Alkalies • Chlorine • Calcium Carbonate • Calcium Chloride • Dry Ice • Other Basic and Intermediate Organic and Inorganic Chemicals • Specialized Cleaning Materials for Business, Industry and the Home

LABOR

Crisis on Lakes

Shippers face need for a record haul without assurance that seamen will be deferred or frozen to their jobs.

Great Lakes shippers, steaming up this week, sought doggedly to evolve a formula by which they could obtain draft deferment for some 3,200 skilled seamen.

• **Striving for Record**—Without them, fleet owners said they cannot move the hoped-for record 192,000,000 tons of critical war material—iron ore on which 85% of the steel industry depends, and enough grain, coal, and limestone to bring the total to twice the tonnage of the Panama and Suez canals.

Pleas for the same blanket deferments granted to salt water sailors were denied in Washington. The best that a committee representing 33 Lakes shipping companies could obtain in conferences with WPB, the War Food Administration, and the Office of Defense Transportation was permission to integrate all requests for draft deferments through

a central committee clearing house.

• **Up to Each Company**—Present practice is for the individual company to plead with draft boards for its own men. Pittsburgh Steamship Co., operating 75 vessels, found itself dealing with local boards in 28 states, a big job of educating members on the problems of the Lake carriers.

The committee has no assurance, however, that despite over-all consideration through the central agency, deferments will not be denied as readily en masse as individually.

A statement attributed to WPB Chairman Donald M. Nelson that building a young man's army comes before steel production added gloom to the shippers' outlook.

• **Subject to Call**—Companies represented by the committee require 12,605 officers and men, of whom about 6,800 are subject to immediate draft call. The deferments sought would cover 1,200 licensed officers, 1,800 skilled and 200 unskilled seamen.

The committee proposes a vigorous recruiting program to replace those for whom deferments will not be asked. A 16-year-old schoolboy can make \$148.50 a month, working a 48-hour week, receiving, in addition, board and quarters

figured (for Social Security) at \$1.50 a day.

• **Nine per Ship**—A. H. Ferbert, president of Pittsburgh Steamship, said loss of the 3,200 would take nine essential men off each ship. Herbert Jensen, secretary of A.F.L.'s Seafarers International Union, added: "Unless the boards co-operate, either 25% of the boats won't leave the docks, or all the boats will be 25% undermanned."

High wages on the West Coast also are blamed for the drain of manpower from the Lakes. Seamen reclassified 1-A frequently take the simple alternative of shipping on salt water vessels, where deferment is almost certain.

To counteract this, the committee is asking the War Manpower Commission to require Great Lakes seamen to obtain certificates of availability before being employed elsewhere, either ashore or on salt water.

Bounds Defined

Labor relations agencies agree on distribution of powers and enforcement of orders to close door on friction.

The National Labor Relations Board and the National War Labor Board have made a deal—keeping NWLB out of most disputes arising under the Wagner act, but permitting NWLB in specific cases to use its emergency powers to enforce NLRB edicts.

• **State Relations Covered**—A statement of "principles" has been prepared by NWLB after consultation with NLRB and distributed to all staff units to keep the two agencies out of each other's hair.

The same set of rules is to apply to relations between NWLB and state labor relations agencies with powers over intrastate commerce similar to those exercised by NLRB over interstate commerce.

• **The Rules**—Rules laid down in the statement include:

(1) Where there is no history of collective bargaining between an uncertified union and the employer, NWLB will refer the case to the NLRB for a ruling.

(2) NLRB certifications—which are normally treated by NWLB as valid for a year—will be respected as conclusive by NWLB during that period. Labor disputes certified to NWLB within a year of NLRB certification will be settled by NWLB with an order providing that prescribed terms and conditions be effective for a year from the date of the order.

(3) If the company has failed to obey an NLRB order to bargain with a certified union, NWLB will feel free to issue an order providing terms and conditions of employment—but without prejudice to the em-



STEEL MEN AT SEA

Pleased with the results of earlier tours by labor-management groups around its big amphibious training base at Solomon, Md. (BW—Jan. 22 '44, p90), the Navy played host to another such party last week. In the delegation

were steel company executives and unionists who cruised Chesapeake Bay aboard a new LCI (Landing Craft—Infantry) boat. Guests were permitted to roam at will, but the focal point of interest was the signal bridge from which target planes were directed for anti-aircraft gun practice.

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DO YOU EVER BUY A POUND OF AIR?

**These "Buffalo" Fans Each Deliver Over
33,000 Tons of Air Every 24 Hours**



*FAN is the heart of
air system. With a
Buffalo Fan the system
always up to par.*



American manufacturers, long accustomed to volume production, have multiplied that production many times. In the chemical field, for example, a prominent producer of an important product needed more process AIR than ever before anticipated. He called in "Buffalo" engineers and the two giant fans shown above are now on the way to his plant. Each of these fans delivers 618,000 cubic feet of air per minute, more than 33,000 TONS of air every twenty-four hours. If it were possible to direct the air from these two fans in a stream one foot thick, by twelve feet wide

it could circle the earth at the Equator in a day. A shaft of air a foot square could go to the Moon and back in less than two days. "Buffalo" builds process fans, air conditioning equipment, heating, cooling and ventilating equipment, as well as mechanical draft apparatus. The fans shown above are probably much larger than you will ever need... but when you do need fans... remember that "Buffalo" has a reputation for fine performance and low operating and maintenance costs all over the World. It costs no more to buy "Buffalo", why not have the best?

BUFFALO FORGE COMPANY

BUFFALO BUFFALO PUMPS, INC. • THE GEO. L. SQUIER MFG. CO.
New York CANADIAN BLOWER & FORGE CO. LTD. • CANADA PUMPS, LTD.



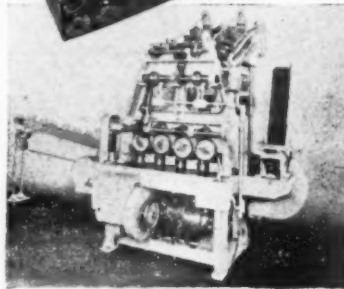
More manpower

It has always been our job to devise new machines that would free the human brain and hand for more important tasks.

When our country went to war, cartridges had to be loaded into cartons by slow, expensive hand methods—until we designed and built this machine for the job.

It inserts 20 thirty-caliber cartridges into the carton, which has a liner in cardboard sections, so that each cartridge is separate. Sixty filled cartons per minute leave the machine—the work of twenty hand operators. This is but one of a number of machines which we have originated and built for armament production.

We are ready now to study your present or post-war packaging machinery requirements. Consult our nearest office.



Cartridge Box Loader



SPRINGFIELD 7, MASS. NEW YORK CHICAGO CLEVELAND LOS ANGELES TORONTO

PACKAGE MACHINERY COMPANY

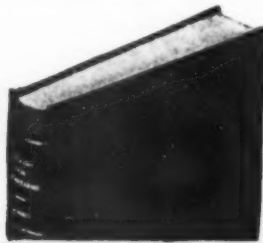
Over a Quarter Billion Packages per day are wrapped on our Machines

Make sure of correct letter forms, punctuation, and English usage

• The book provides discussions and models of, and exercises on, many types of letters—business, semibusiness, official and social.

• Rules for the use of the fundamentals of capitalization, punctuation, and grammar, with exercises and illustrations, are supplied to answer the secretary's questions on the important technical details of English usage.

• The writing of minutes, the preparation of manuscripts for publication, and proofreading are described.



• The last two chapters of the book give valuable information on the efficient use of the dictionary and tell where the secretary will find particular information on people, places, books, etc.

• Chapter 11 tells how to use the period, comma, semicolon, colon, question mark, quotation marks, apostrophe, italics, dash, and the hyphen.

Here's a book that shows the secretary how to turn dull form letters into lively, good-will winners, and gives good, definite rules for questionable letter forms, troublesome punctuation and inconsistent English grammar.

Just Published

ENGLISH FOR SECRETARIES

The Fundamentals of Correct Writing
Applied to Correspondence

BY KATE M. MONRO

308 pages, 5½ x 8, \$1.75

See it 10 days on approval

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330 W. 42ND ST., NEW YORK 18, N. Y.

Send me Monro's ENGLISH FOR SECRETARIES for 10 days' examination on approval. In 10 days I will send \$1.75 plus few cents postage, or return book postpaid. (Postage paid on cash orders.)

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Address

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Company

(Books sent on approval in U. S. and Canada only.)

BW-3-25-44

ployer's legal right to appeal NLRB action to the courts.

(4) As a normal rule, NWLB will order parties to obey other NLRB orders "unless, in its judgment, the conduct of the war makes it desirable to do so."

(5) Voluntary wage increase applications from employers will not be processed if the NLRB has ordered the holding of an election to determine the bargaining status of union in the plant. Unions, however, will not be allowed to prevent the processing of a wage increase application after they have lost an election, even if they are petitioning for a new election—but without prejudicing the right of the union to claim before the NLRB that the increase constituted an unfair labor practice.

(6) Similarly, NWLB will not stick a neck out in cases involving two unions scrapping for bargaining rights from an employer—where the previously recognized union's status is being challenged before the NLRB.

(7) In cases where an employer signs a contract with a union at the termination of a contract with the union, and the union charges the company with an unfair labor practice, the NLRB will be allowed to decide.

(8) NWLB will keep hands off cases involving determination of the appropriate plant unit for bargaining purposes.

SEPARATION RATE RISES

Although the normal seasonal pattern shows the January quit rate to be below average, new figures for that month this year reveal that 67 workers of every 1,000 employed in factories either changed jobs or left manufacturing work. Thus the nation entered the year when the greatest demands will be made on manpower resources with a turnover rate running over 80%—more than 800 (12 x 67) out of 1,000 workers leaving their jobs in a year.

A breakdown of the turnover rate shows, for every 1,000 workers, 4 straight quits, 7 discharges, 5 military separations, and one miscellaneous. Quit rates for women run considerably higher than for men. The five war industries in which the turnover problem is most acute are (in the order of severity) aluminum and magnesium smelting and refining, shipbuilding and repairs, gray iron castings, steel castings, aluminum and magnesium products.

New hirings in January were at the rate of 64 per 1,000.

LABOR HOARDING CHARGED

As labor supplies tighten up, tempo shortens up. This was illustrated this week in Louisville, Ky., where strenuous efforts have been made to avoid Group I (labor stringency area) classification with its consequent jeopardy to new war contracts (BW—Sep. 25 '43, p. 86).

Charges of labor hoarding were

...ried by Edward H. Weyler, executive secretary of the Kentucky Federation of Labor, at Curtiss-Wright Corp., the Westinghouse-operated naval ordnance plant, and Jeffersonville Boat & Machine Co. Weyler demanded an investigation by the War Manpower Commission.

Responsible officials of all three plants denied the charges but welcomed investigation. Weyler contends that the latter force in Louisville is only 50% utilized, principally because manufacturers seek to fatten the cost factor in cost-plus contracts.

Layoffs Watched

Michigan draft officials involve formula to absorb deferred workers without overriding union seniority rules.

Draft officials are planning to take immediate advantage of factory layoffs to bolster the number of men going into the Army. Michigan Selective Service officers made that clear last week end when they advised companies to lay off their deferred men first.

New Schedules Urged—Immediate re-adjustment of replacement schedules is recommended where curtailment of working forces is necessitated by war contract cutbacks or cancellations. This suggestion, however, was not backed up by a formal order, evidently in belief that one would not be necessary.

Fears of union leaders that such a program would conflict with seniority guarantees in labor contracts as it has in New York City (BW—Mar.18'44,p87) were dispelled. Selective Service officers at Lansing, Mich., said that seniority and replacement schedules could work independently of each other.

How It Works—A plant facing layoff of a few hundred men, it was stated, would reduce its force in accordance with contract seniority provisions. Simultaneously, Selective Service could be notified of an amendment in the plant's replacement schedule, cutting down the number of necessary men by the number laid off. Draft eligibles would be called up, and as they were inducted the laid-off workers could be summoned to the vacant jobs.

The one worry voiced by industry was that compliance with the advice would tend to reduce the ability of a company to obtain new war contracts. Particularly in smaller towns, it was argued, loss or drastic cutback of a job would result in plant's losing all draft eligibles and not being able to obtain more if it obtained new contract.



ARE YOU READY?

When Uncle Sam gives the word . . . "On your mark! Get set! Go!" . . . Will you be ready?

If we—Business and Industry—expect to free ourselves of Government alphabetical agencies we had better start now to show that we are capable of reassuming our full responsibilities as managers of "private enterprise".

What about plant personnel? In many plants there are only a few of the former trained employees still on the job. It will take *just as long* to convert them from war to peace, as it took from peace to war. Again men must be trained in production.

And what about marketing and distribution? Uncle Sam, for a long time, has been our only customer. In Postwar we'll be back on the selling job again. We'll be faced with sales training, too.

And here's another question—"Will your suppliers and subcontractors have their materials and will they be ready?" Don't forget that the lack of one small part can stop the entire program.

And so—if we want to operate postwar as "private enterprise" we had better be ready to *prove* that the minute we are granted materials for peacetime products, we will be ready with all the rest of what it takes to *make* those products, *move* those products, and maintain high level employment.

Geo. T. Trundle Jr.
President

1919-1944

THE TRUNDLE ENGINEERING COMPANY

Brings to Industry and Business

25 Years OF MANAGEMENT ENGINEERING EXPERIENCE

GENERAL OFFICES • CLEVELAND • BULKLEY BUILDING

CHICAGO

NEW YORK

City National Bank Bldg., 208 S. La Salle St.

Graybar Bldg., 420 Lexington Ave.

RECONVERSION
MODERNIZATION
WAR O.P.A. RENEGOTIATION
W.P.B. W.M.C. ELEVATORS
TAXES SEDGWICK
REDUCE COSTS



Me? I'M VICE PRESIDENT IN CHARGE OF COST REDUCTION

That's a tough job you've cut out for yourself, mister. And an important one. Maybe Sedgwick can help.

There's materials handling, for example. For over 50 years Sedgwick engineers have skillfully planned, designed and installed complete layouts for the efficient movement of men, material and merchandise—helping reduce costs by increasing efficiency.

So if you want to make your job a little easier—if you're planning to do the job better and faster—send for a Sedgwick engineer. We've solved many manufacturers' cost reduction problems by solving their vertical transportation and materials handling problems. Chances are we can solve yours. Tell us about them.

"MEN WHO KNOW ARE SOLD ON SEDGWICK"

Sedgwick MACHINE WORKS
159 West 15th Street, New York 11, N. Y.
ELEVATORS • HOISTS • ROTO-LIFTS

PERFECT COPIES in Quick Time!



For engineering, tool design, plant planning departments and general office.

WITH
HUNTER Electro-Copyst

Clean, sharp copies direct from pencil originals—machine made tracings in a few minutes, regardless of size—emphasis of detail without retouching—these and many other engineering short-cuts are made possible by the Hunter Electro-Copyst. Full-shaded pencil drawings can be reproduced by the Electro-Copyst with better definition of tone than by any other method.

There is an Electro-Copyst for every need, from the portable office model to the big units, especially developed for the aviation industry, that will take originals 48" x 168". All are so simple your office boy can operate them.

• Our booklet contains many valuable suggestions on how to get better reproduction faster. Send for it today!

HUNTER ELECTRO-COPYIST, INC.
107 E. Fayette St. Syracuse, N. Y.

Mesta Votes No

Employees reject C.I.O. and elect to keep no-union status which has defied organizational efforts for seven years.

For seven years the C.I.O. campaigned persistently to organize the 4,200 employees of the Mesta Machine Co. before risking a National Labor Relations Board election for bargaining rights. But hopes of the C.I.O. United Steelworkers of America for a written contract at the West Homestead (Pa.) plant were dashed last week when Mesta employees voted 2,428 to 1,379 against representation by the union.

• **Claims Disproved**—The thumping defeat disproved C.I.O. claims, made at a recent NLRB hearing, that it represented more than 3,000 Mesta workers. Only the C.I.O. union was named on the ballot. The company's efforts to have absentee ballots sent to employees in the military service were rejected by the

board, which stuck to its policy of permitting a vote only to those service men who appeared personally at the polls.

One of the few steel industry unions in the Pittsburgh district to remain unorganized, Mesta has refrained from signing a bargaining contract until the union demonstrated that it represented a majority of the workers. In 1937, the Steel Workers Organizing Committee predecessor of the present union, opened its campaign to organize the employees. • **War Strike Killed**—Several short-line strikes and threats of strikes have featured the stormy relations between the C.I.O. and the company, but the most dramatic incident occurred Dec. 8, 1941. A work stoppage, in an attempt to gain union recognition, was set for that day.

But because of the Japanese attack on Pearl Harbor the previous day, union leaders appealed to workers to stay on the job. Since that time, organizational work has continued, and last January the union, feeling it had enough members, petitioned the NLRB for the first election to be held in the plant.

• **Overtime Suit Pending**—Still pending in U.S. District Court is a million-dollar



ACCOLADE—WITH FANFARE

Posing with a blind worker and his canine guide at General Motors' New Departure plant, Luise Rainer, movie actress, headed the cavalcade of celebrities that helped the War Manpower Commission last week honor Meriden, Conn., as the "nation's ideal war community." Chief reason for the award: Meriden's utilization of

people—young, old, handicapped—to swell its prewar labor force of 11,000 to 20,000. But the fanfare equaled that of a Hollywood first night. Mrs. Rainer, Jimmy Durante, comedian, and Capt. Glenn Miller and his band provided the entertainment; W.M.C. Chairman Paul V. McNutt, Gov. Raymond Baldwin, and Sen. Francis McDermott and John Danaher—both Meriden natives—the oratory.

238 Wartime Uses of Chrysler Airtemp "Packaged" Temperature-Humidity Control

PLASTICS PROCESSING
DENTAL CLINIC • PSYCHOLOGICAL BUILDING
FLIGHT SURGEONS AREA • OVERSEAS HOSPITALS
CRASH ROOMS • SPECTOGRAPH BUILDING • T
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BOMBSIGHT STORAGE • RADIO REPAIR • THE
GUNNERY PHOTO LABORATORY • GUN SIG
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GAUGE ROOMS • PROPELLER TEST ROOMS
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DRAFTING ROOMS • POWDER DEHUMIDIFICATION
GUN EMPLACEMENTS • VARIABLE TEMP ROO
HI-ALT-LOW-TEMP TEST CHAMBER • RADIO ROO
BRIEFING ROOM • AIRCRAFT ENGINE ASSEMBLY
DECOMPRESSION CHAMBER • RECTIFYING ROO
MOBILE BALLISTIC CAMERA TRAILER • WAREHO
ADMINISTRATION • PENICILLIN MANUFACT
AGE • MUNITION

CHRYSLER AIRTEMP "PACKAGED" UNIT



Chrysler Airtemp pioneered "Packaged" Air Conditioning. These units, used singly or in multiple, are meeting over 80% of the temperature-humidity control requirements of industry and the many branches of the Armed Forces. Hermetically sealed in a bath of oil, these units are as trouble free and quiet as an electric refrigerator.



When war hit America the instant demand for efficient air conditioning and refrigeration equipment presented a major problem to precision manufacturers, processors of many products and munitions, as well as, in countless operations or services of the Military. Chrysler Airtemp, through years of peacetime experience in applying temperature-humidity control to all types of

plants, buildings, stores, shops and offices, was ready and able to analyze and install the correct equipment to assure "tailored" climate control. How Chrysler Airtemp "Packaged" and Heavy Duty Variable Capacity Radial Units—from tiny, fractional horsepower to 75 horsepower—are serving the war program is told in the booklet, "Chrysler Airtemp At War." Send for your copy.

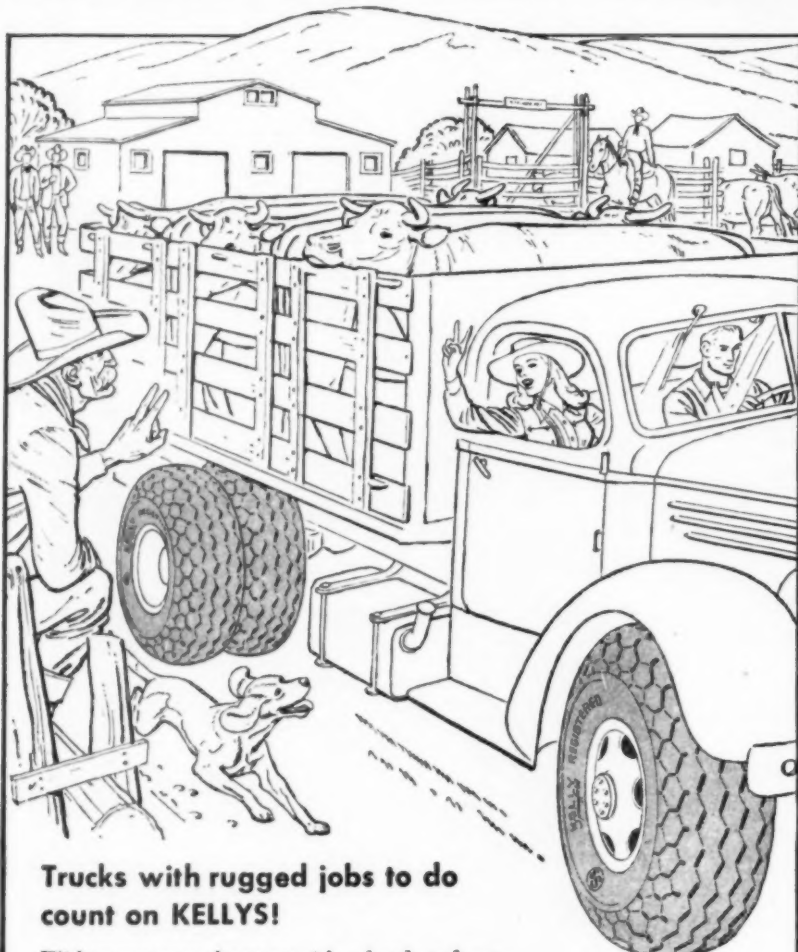
Tune in Major Bowes Every Thursday, CBS, 9 P. M., E. W. T.

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AIRTEMP DIVISION OF CHRYSLER CORPORATION • DAYTON, OHIO

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PROVED AND IMPROVED FOR 50 YEARS

KELLY

Springfield **TIRES**

LET'S ALL BACK THE ATTACK... BUY WAR BONDS



suit filed last October by the union charging that the company underpaid its employees for overtime work (BW—Oct. 23 '43, p100). In seeking to recover \$500,000 for its members and an equal amount in liquidated damages, the union asserted that under the federal wage-hour law, time and one-half for work over 40 hours a week should have been figured from base rates plus incentive bonus.

Sealers' Ceiling

Regional board approves double pay for seal hunters who braved Jap perils in Pribilofs to make a record catch.

One way to get government approval of extra pay is to snatch critically needed war supplies from under the very eyes of the Japanese.

The Kansas City Regional War Labor Board has just approved payment of bonuses equaling their regular pay to 40 seal hunters who went on a sealing expedition last summer to the Pribilof Islands, off the coast of Alaska (BW—Nov. 6 '43, p40).

• **To Meet Shortage**—The Fouke Fur Co. of St. Louis contracted with the men to make the trip when the shortage of seal pelts and oil became acute. No sealing expedition was made in 1942, because the Japanese had moved into the Aleutian Islands, which string across the Bering Sea south of the Pribilofs. At the beginning of the war, the government evacuated native workmen from Pribilof, and the supply was cut off. When the hunters set off on their expedition in May, 1943, the Japanese still had a foothold in the Aleutians. Since no time limit for the voyage could be fixed, the contract provided for a reduced rate of pay to the sealers. This was done to protect the company in the event the employees were captured by the enemy or, because of war conditions, it was impossible for them to return to the United States.

• **Record Catch**—Therefore, when the expedition returned after 5½ months with a record catch in spite of the hazards involved, Fouke asked permission to double the men's pay. The board ruled that the request was justified.

The Interior Dept. took over control of the Pribilof seal herd in 1911 after years of indiscriminate hunting had reduced to a few thousands a herd that once ran into the millions (BW—Aug. 15 '42, p58). Rigid conservation brought the number of seals back to an estimated 2,380,000 in 1941, despite sales of more than a million skins.

Grease on Rails

Manpower mobilization group hopes Ford's predictions of quick victory won't scare off railroad job seekers.

Manpower authorities, now scouring the bottom of the barrel, are hoping that the widely republished interview of Henry Ford gave the Atlanta (Ga.) Constitution this week wouldn't be taken too seriously by prospective entrants into the labor market.

The Predictions—Two dramatic Ford predictions published in the Georgia newspaper were especially worrying manpower recruiters. These were (1) that the war will be over in two months, and (2) that the railroads will eventually be abandoned.

This made particularly bitter tea for the newly established Railroad Manpower Mobilization Committee, jointly named by representatives of the Office of Defense Transportation, the War Manpower Commission, the Railroad Retirement Board, the Office of War Information, the Assn. of American Railroads, and railway labor organizations.

The Fears—The committee's task—and it is considered one of paramount importance—is to find men and women to fill 100,000 present and impending vacancies on the nation's railroads (BW—Feb. 12 '44, p9). New hands are needed in almost every category of railroad work.

ODT reports that some local transportation congestion has already been caused by lack of manpower, and the situation promises to become increasingly serious if labor is not found.

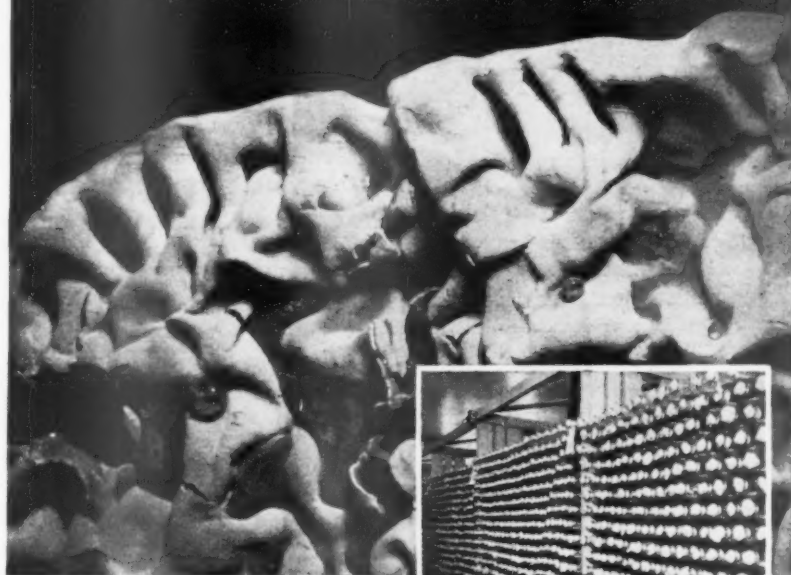
In order to facilitate the committee's work, the railroads are re-examining employment practices to streamline hiring, are preparing to step up training programs, and to employ women in all larger numbers. Hiring of labor at the committee dredges up will be done directly by the railroads and through the field offices of the Railroad Retirement Board and the local offices of the United States Employment Service.

The Campaign—Labor organizations are undertaking to help solve the railroad labor problem through active participation of their local lodges, and by encouraging their members to present the advantages of railroad employment through personal contacts.

The committee has emphasized the advantages of railroad employment to prospective workers by pointing out that employees of the carriers have seniority rights in a permanent industry, vaca-

PENICILLIN...

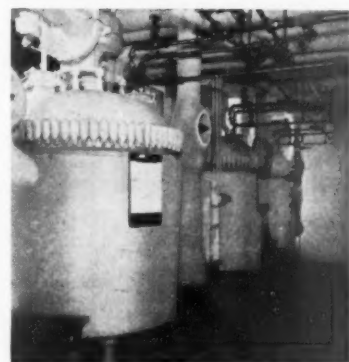
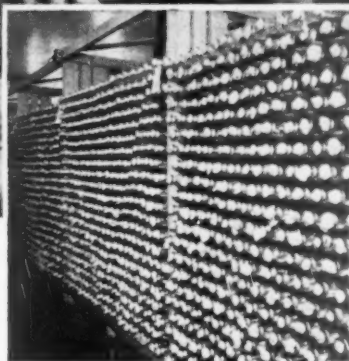
The Miracle Worker



Photographs courtesy RICHEL LABORATORIES, Division of WYETH, Inc.

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First a white, velvety blanket . . . later turning green as the spores emerge . . . then studded with golden, jewel-like drops of moisture—that's the way penicillin grows . . . first in glass laboratory jars . . . then collected and processed in Pfaudler Glass-Lined Steel Reaction Kettles. From birth in the culture fluid to its final emergence as the greenish brown, miracle-working powder, every step in the making of penicillin must be painstakingly guarded against contamination of any sort. That's why glass is used throughout.



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• **FOREIGN-TRADE EXECUTIVE**, native-born American, expert industrial and commercial organizer and administrator, 25 years executive experience abroad, seeks connection with reputable firm interested in foreign business either now (in S. America, for example) or post-war. Available at once. Box 374.

• **EXECUTIVE ECONOMIST** with transportation utilities background and excellent record increasing profits now doing post-war planning for division of automotive corporation desires permanent connection. Box 376.

representative wanted

• **EXPORT COMPANY** requires representatives in New York, Chicago, Denver, Minneapolis, San Francisco, Los Angeles, Argentine products of all categories. Communicate by air mail. Mutual references. Compania Sud-Americana de Exportaciones e Importaciones, San Martin 378—Buenos Aires.

representative available

• **EXECUTIVE SALES ENGINEER**, 45, management and contracting experience national building products manufacturer, knowledge government agencies, construction and shipbuilding industries desires representation for reliable manufacturer. Pre-war Washington resident, engineer education, 2 years Naval Reserve. Box 377.

machine shop

• **FOR SALE**, or seeking post war connection on manufacture. Jobbing machine shop in Texas Coast Area. Box 375.

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"clues" ads are published as space is available, usually within two or three weeks of receipt. Closing date on publication issues, Thursday of preceding week. Rates: 50 cents a word; \$2.50 per line. Minimum \$5. Box number counts as 2 words. Address replies c/o Business Week, 350 W. 42nd Street, New York 18, N. Y.

tions with pay, stable labor regulations, and are covered by a federally administered retirement and unemployment program.

Up to now, the first point has been most persuasive in attracting workers who might be considering higher-paid war work. The committee hopes that Henry Ford has not robbed it of its strongest argument.

Seeking Revenge

Dissenters in Ford local of U.A.W. urge retaliatory steps against disciplinary penalties, but get little sympathy.

Factionalism threatened the solidarity of the Ford local of the C.I.O. United Automobile Workers this week in the wake of a rash of wildcat strikes and subsequent suspensions of the instigators (BW—Mar.18'44,p88). The trouble spot was the Pratt & Whitney unit, where about 14,000 of the 80,000 Rouge plant workers are employed. Announcement at a union meeting of the disciplinary penalties levied by the company against 121 workers precipitated the schism.

• **Strike Proposed**—Dissenters against the penalties moved for a strike vote and introduced a resolution calling for a special convention to rescind the organization's no-strike pledge. The meeting was adjourned before any action could be taken on these motions.

The rump minority then organized itself into another meeting in the same hall and passed both motions, but the top union officials of the Ford local declined to recognize the rump session, and international officers concurred.

• **Strength in One Spot**—Whether the incident will fizzle out is an open question. A considerable show of strength in the Pratt & Whitney unit backed up the insurgents, but they were opposed by other units at Ford.

However, the situation did not augur well for aircraft engine production at Rouge, which company spokesmen maintain has been held down consistently by radical elements of the union (production has picked up since the penalties were imposed).

These so-called radicals bore the brunt of the company discipline, which was concurred in by the local and international of the auto workers.

• **Cases Pending**—Of the 121 affected men, 26 were discharged, 16 reinstated after inquiry, 11 given long layoffs, and 37 given short layoffs. Three quit, and the cases of the remaining 28 were subject to further study.

SERVICE RAIDS STOP

The armed services have agreed to stop raiding war plants to obtain women for the Waves and WAVES.

The pact—made with the War Manpower Commission—provides that the services will not recruit women war workers who have not secured statements of availability. Recruiting drives will no longer be aimed at war plants, and service ads will say that women employed at top skills in essential work are not wanted.

In return, the USES will refer to the services any eligible woman who is not employed at her maximum skill in war work, along with any not in essential work. Armed service rejects will be referred back to the USES for placement in war work.

Until the crackdown on the wildcat strike leaders last week, the Pratt & Whitney building had been the scene of intermittent walkouts and picketing for a ten-day period. But at one stage last week, pickets barred the two gates used by aircraft engine building employees, keeping out workmen from other shops whose absences affected operations at their respective plants.

TROLLEY FOREMEN SNUBBED

Another legal test of whether foremen are eligible to participate in collective bargaining is on the docket of a common pleas court in Pennsylvania.

A.F.L.'s Amalgamated Assn. of Street, Electric Railway & Motor Coach Employees, representing 100 instructor, supervisors, and route foremen employed at the Pittsburgh Railways Co., is appealing a Pennsylvania Labor Relations Board ruling that the organization is not an appropriate collective bargaining unit.

The board based its decision entirely on the Maryland Drydock Corp. case (BW—May15'43,p8), in which the National Labor Relations Board ruled that the inclusion of supervisory employees in collective bargaining units would "disrupt" managerial and production techniques and "militate against" the proper functioning of the National Labor Relations Act.

In spite of the Maryland Drydock ruling, so many requests from foremen's groups for collective bargaining status continue to crop up that NLRB held an open discussion last month for the airing of management and labor views on the matter (BW—Feb.26'44,p104).

THE WAR AND BUSINESS ABROAD

BUSINESS WEEK

MARCH 25, 1944



●
The Russian drive across Bessarabia immediately raises the European political question from the academic level to the urgently practical.

●
The Nazis will almost certainly make their next stand along a line running from Riga in the north to the Carpathian Mountains in the south.

●
This means the Russians will occupy Bucharest, control the mouth of the Danube, and that the Ploesti oil fields (biggest in Europe and responsible for one-third of Hitler's petroleum supply) **will soon be within the range of their guns if not actually in their hands.**

●
Look for new Allied political overtures to tempt Bulgaria out of the war. With Russian troops rapidly approaching their northern frontier, the bomb-nervous Bulgars—themselves Slavs, and long openly friendly to Moscow—are now likely to welcome proposals to oust the Nazis and join the Allies.

●
When Bulgaria yields, the Axis position in Greece and the Aegean islands becomes untenable.

Also, the flow of supplies to the guerrillas in Yugoslavia—both from Russia by way of Bulgaria, and from Anglo-American bases in Italy—will step up the Balkan campaign against the Germans just when they are likely to be invaded from the west.

●
Well-trained and fully equipped Greek and Yugoslav divisions recently staged extensive maneuvers from bases in the Middle East where they have been reorganized and equipped by Britain and the U. S. and are ready to assume military control—under Allied supervision—as soon as their countries are liberated.

●
Bessarabia will immediately be reincorporated in the Soviet Union.

●
But what happens in Bucharest, capital of Rumania, should be watched for the first clear indication of the brand of Allied Military Government the Russians intend to install in liberated territories in eastern Europe which they have already indicated must be friendly—both economically and politically—to Moscow.

●
Don't miss the repercussions on Nazi-held Europe as the economic noose tightens around Germany.

Finland, Yugoslavia, and Spain—all in the dangerous peripheral territory now slipping from Nazi control—provide Hitler with the bulk of his copper.

Except for **France**, Hitler's biggest supplies of bauxite come from **Hungary** (which the Nazis felt compelled to occupy this week) and **Yugoslavia**.

Greece and Turkey provide the Nazis their only important supplies of chrome ore.

Bulgaria, Turkey, and Greece provide virtually the entire supply of tobacco.

For vegetable oil, the Germans rely heavily on olive oil from **Spain, Italy, and Greece**, and specially developed soybean farms in Bulgaria and Rumania.

●
Bulgaria and Rumania are big contributors to the Nazi corn supply.

●
The stage is carefully being set now to make it possible to strike Germany from north and south as well as east and west.

Don't be misled by the slowness of the Italian campaign (BW—Jan.

THE WAR AND BUSINESS ABROAD (Continued)

BUSINESS WEEK
MARCH 25, 1944

22'44,p103). Delay here fits into over-all Balkan strategy. **All timing is keyed to plans for all-out invasion from England.**

Strategy is to hit Germany so hard from all sides that it will be unable to withstand the concentrated attack.

Gen. Stilwell's new campaign against the Japanese should not be mistaken for the major drive to oust the Nipponese from Burma.

It is nothing more than a well-planned, small-scale effort to dislodge the Japanese from half a dozen strategically placed airfields less than 400 miles south of the air freight route between India and China—Chungking's lifeline.

Officials declare that traffic over this route has now reached such vast size that the equivalent of the entire volume of Chicago-New York air traffic could be added and would go unnoticed.

The Japanese lack the air power to interfere seriously along this well-patrolled route, but they have been annoyingly successful in sneak attacks.

Policy-making decisions as important to international trade as are reconversion plans to domestic business can be expected in the next few months.

Canada has recently signed mutual aid agreements with the United Kingdom, Soviet Union, and Australia.

These agreements contain no provision for repayment but, in a few special cases, call for return to Canada of some of the goods delivered.

Goods involved are part of another billion dollars of supplies that Canada voted last year to give to its Allies.

Not to be ignored for their **postwar implications** are provisions that:

(1) Allow Ottawa the right to ask recipients to transfer automotive equipment supplied under the agreement to another United Nation or to the United Nations Relief & Rehabilitation Administration;

(2) Make it possible to transfer equipment after the war to Canadian forces still serving overseas instead of shipping fresh supplies from home;

(3) Allow Canada to retain title to all cargo ships delivered to Britain and Australia and still in existence after the end of the war.

A battle is already raging behind the scenes in Washington on whether UNRRA (page 113) is to purchase the bulk of its textiles in England or U. S.

With war orders falling off, both nations are after the business.

Britain claims it can tackle the job at once, build stocks in advance of relief needs, store them near ultimate distribution points.

U. S. officials claim they need a large share of the business during the transition period and are close to raw materials which are more bulky to ship than finished goods.

Sole indication of UNRRA's stand on textile allocations is its firm statement that **the size of each nation's contribution (ours is about five times that of Britain) will not be weighed in awarding the contracts.**

Czechoslovakia wants to rehabilitate its heavy industries with U. S. equipment.

Officials thoroughly familiar with the famous Skoda plants, largest munitions makers in eastern Europe, are in the U. S. exploring the possibilities for purchasing a full new line of equipment. **Expectation is that Hitler will wreck the plants at Pilsen before retreating from Czechoslovakia.**

BUSINESS ABROAD

Financing UNRRA

Close to 2½ billions will be available for relief when the participating nations finish work on appropriation measures.

In Washington, London, Ottawa, and other world capitals, legislatures are wrestling with appropriations for the United Nations Relief & Rehabilitation Administration.

• **They'll Pay 1%**—UNRRA will eventually have a pool of about \$2,500,000,000 for relief. Each of the 44 nations which adhered to the UNRRA agreement and met in Atlantic City last fall to plan its operations (BW—Nov.20'43,p38) has agreed tentatively to turn over to UNRRA a sum equal to 1% of its national income in 1943.

The Atlantic City conference selected officials for UNRRA and established Washington as headquarters. Since then Herbert H. Lehman, UNRRA chief, has been gathering his staff; now he is in Africa studying his job at first hand.

• **Inherited Supplies**—So far, UNRRA has not expended one dollar on relief, although it inherited substantial supplies acquired by its American counterpart, the Office of Foreign Relief & Rehabilitation Operations. However, until relief in liberated areas is turned over to UNRRA by the military authorities, UNRRA will not acquire title to relief stocks now being accumulated.

The initial appropriation of \$2,500,000,000 for relief and rehabilitation—reconstruction has been ruled out by the UNRRA charter—can only be expended on supplies for liberated Allied territory. Enemy countries are expressly excluded as a sphere of UNRRA operation.

• **Only the Beginning**—UNRRA's \$2,500,000,000, although more than the total relief expenditures of the Allies in 20 countries of Europe between 1919 and 1924 (excluding loans), is only a beginning. Spending by governments of liberated areas, private relief (working through UNRRA), and private and government loans will run the total reconstruction cost as high as \$10,000,000,000, or \$20,000,000,000 during the years following landings in Europe.

In North Africa, UNRRA's job was done by the Army, drawing on the \$500,000,000 of relief goods acquired with presidential funds; but it has been turned over now to the French Committee of National Liberation.

In Italy, following the initial work of

the Army, relief is in the hands of the Allied Control Commission.

• **A Military Necessity**—During the period of invasion in any area, relief is a military necessity. To protect its own operations, the Army (1) feeds refugees "in motion" (with no visible means of subsistence); (2) provides shelter and transportation for populations displaced by battle operations; (3) makes initial repairs of communications and utilities necessary to serve military and minimum civilian needs; and (4) assures a minimum standard of medical and sanitary facilities.

Most of the nations of northwestern Europe will pay their own way in relief and rehabilitation work. Their work may be financed in several ways: (1) by liquidation of foreign-held funds and investments; (2) by sale of relief-type goods (if any surpluses exist) especially to areas freed at a later date; (3) by sale of nonrelief goods (minerals and services, as in North Africa); and (4) by sale of produce of colonial territories (from French Caribbean islands, the Belgian Congo, and Netherlands Guiana, for instance).

• **Revolving Stock**—UNRRA will invest an initial slice of its stock in these countries, revolving it without depleting total holdings. Supplies will be sold to local people, who in most cases have plenty

of money which they have been unable to spend. Local currency obtained by UNRRA may be exchanged for dollars spent by occupation forces, as in North Africa, or used to buy stocks for relief elsewhere.

By and large, UNRRA expects its stockpile to be depleted chiefly in badly devastated areas such as Greece and Yugoslavia—countries without substantial funds or investments abroad.

• **To Be Spent at Home**—Funds provided by UNRRA members will be spent, as far as possible, in the contributing country. Thus most of the \$1,350,000,000 about to be appropriated by Congress will be expended in the U. S.

The Foreign Economic Administration will act as procuring agent for UNRRA and will clear requirement schedules with the War Food Administration and WPB. Only in rare instances will serious shortages require consultation with the Combined Boards (BW—Jan.29'44,p55).

• **Stocks Pile Up**—Right now FEA is handling the stockpiling of relief supplies, and a substantial array of food, clothing, and medical supplies is accumulating in Africa, the Middle East, Britain, and in American warehouses. But UNRRA has no lien on these supplies until (1) it receives appropriations from Congress and other member govern-

GLOBAL ADVERTISING

With our lend-lease goods being distributed today in places that will become the postwar markets of tomorrow, Lend-Lease Administration is missing no bets. Like U. S. textile exporters (BW—Sep.4'43,p48), and Canada's Mutual Air Board (BW—Sep.18'43,p54), lend-lease officials order that supplies be plastered with labels in various languages, English and Russian (below), Arabic and French (right).



ments, and (2) it "lifts" them for use in an area relinquished by the Army.

Procurement of relief and rehabilitation supplies by the French, Belgian, and Dutch governments will be handled by purchasing missions which will become claimants before FEA in the United States.

• **Funds Frozen**—The U. S. holds \$8,500,000,000 in frozen funds (BW—Feb. 27'43,p96), and about \$4,000,000,000 of the total belongs to overrun countries:

Netherlands	\$1,500,000,000
France	1,400,000,000
Belgium	400,000,000
Norway	100,000,000
Others	284,000,000

Because much of this wealth is gold (for currency backing) and private investment, only a part will be readily available to the governments. It may be possible, however, for some nations to liquidate investments (as was done by Britain prior to lend-lease) by compulsory substitution of new government issues for privately held properties.

• **Self-Help Stressed**—One of the chief concerns of UNRRA, as it prepares to launch its program, is that primary attention to emergency relief shall not submerge its intention to help people to help themselves. Thus, by sending seed as well as food—plus a minimum amount of farm implements and fertilizer—an attenuated and expensive feeding program can be avoided. By sending cloth as well as clothing, a lengthy and costly aid program can be circumvented.

LATIN AMERICA

Help for Mexico

Working on the railroads gives U.S. some queer problems. Appropriation is doubled in an effort to speed rehabilitation.

MEXICO, D. F.—Strange things are happening in connection with Washington's determined effort to help Mexico solve its transportation problems.

• **Appropriation Doubled**—When, after a long series of crises, more than 25% of the orange crop around Montemorelos, Nuevo Leon, rotted on the ground because of a freight car shortage, the U. S. technical mission—sent to Mexico to help rehabilitate the railroads (BW—Jan. 1'44,p44)—immediately doubled the appropriations for this year. Half of the \$8,000,000 allocation will be required for sidings.

• **Rods Won't Stand Up**—Another unexpected weak spot turned up by the U. S. technicians was the locomotive connecting rods. Mexican railroads during the past four years of expanding traffic have been ordering as many new rods in one month as are ordinarily required by the entire U. S. railroad system in five years.

Specialists declare this is because some of the Mexican equipment has been made of the same type of alloy steel used 40 years ago.

In the state of Oaxaco, trains are specially slow, occasionally requiring two days to travel 50 miles.

• **Plea Turned Down**—After a study of the problem, the mission discovered that this was largely due to the inefficiency of the workers, many of whom were suffering from malaria.

When the mission requested enough quinine from the Mexican Dept. of Health to cure the evil, the department turned it down, claiming that the workers would sell the quinine instead of taking it themselves.

• **Efficiency Jumps**—When the mission obtained the quinine from Washington, it discovered that the workers gave it to their wives and children. When enough was received to supply everyone, railroad efficiency in the area jumped 60%.

Movies in Chile

New producing companies formed with government backing, as the industry emerges from its prolonged infancy.

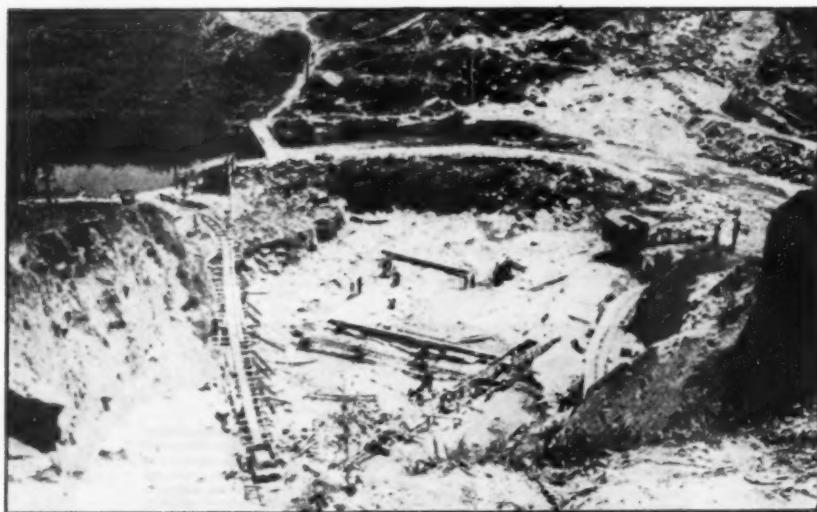
SANTIAGO—Chile, before the end of 1944, expects to have its own motion picture industry. Seven new producing companies have been formed recently, and a total of twelve full-length pictures already are scheduled for 1944.

• **Official Backing**—The government, through its official trade promotion bureau Corporacion de Fomento, is behind Chile films which will produce three pictures. So far, however, no details have been revealed.

Of the crop of new producing companies, the "wise money" is behind VDB (Vivado, De Liguoro, Beier), despite its lack of official backing. VDB will also produce three pictures, the first of which has already been announced as a fast moving musical called "Hoy comienza mi vida," which in English means "My Life Begins Today." Columbia Pictures, which has been particularly alert to trade possibilities in Latin America, has contracted to see that the film is distributed throughout Spanish-speaking America.

• **Small Studios, Too**—Jose Bohr, who built his reputation as a producer in Argentina, will direct two pictures in Chile, and Jorge Delano—distant cousin of President Roosevelt—will direct one. Three other small studios will account for one each.

• **Actors Return**—The Chilean motion picture industry—which is suddenly



FOR BRAZILIAN POWER

Prominent in Brazil's big industrialization program are hydroelectric power projects, the biggest of which—still only blueprinted—is patterned after the Tennessee Valley Authority (BW—Jun. 19'43,p101). Already under

construction is a one-dam project (above) that will impound the Macabu River behind a 120-ft. wall to provide power for important sugar industries at nearby Campos. Brazilians are completing the job started by Japanese engineers who bought back their contract when the war began.



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showing signs of emerging from its prolonged infancy—has managed to entice a number of Chilean-born movie stars to return from Argentina and participate in the new ventures. For years, no aspiring actor or actress would stay in Santiago if he had the price of a ticket to Buenos Aires.

Local interests have been encouraged to launch their venture now because of the dearth of new films from the United States and Europe.

• **Many Revivals**—"Gone With the Wind" and "Lost Horizon" have been revived countless times in Chile, because almost no outstanding films of a later vintage have been received from abroad.

CANADA

Air Policy Drafted

Dominion lays foundation for postwar share in international air traffic with its proposal for a multilateral governing body.

OTTAWA—Canada has forged to the front again in postwar planning, this time with both a domestic and an international policy on air transport.

First of the United Nations to clarify and declare its position on the control of international airways, Canada has put its draft plan in the hands of the U.S., the British, and other governments.

• **Dominion's Voice**—With its territories lying athwart most of the principal air routes linking North America, Europe, and Asia, Canada claims a major voice in the determination of international air transport policy.

Thus, before entering coming international air conferences, the Mackenzie King government has first proclaimed a domestic air transport policy which gives Canada in advance a monopoly of interest in future international traffic (except transborder traffic between Canada and the U.S.). Government-owned Trans-Canada Airlines will be the Dominion's only international carrier.

• **A Postwar Divorce**—Ottawa's new domestic policy is a model of simplification. It reaffirms and perpetuates Trans-Canada's monopoly of transcontinental traffic. From the U.S., it borrows the plan of barring surface carriers from air traffic. Within a year after the end of war in Europe, T.C.A., now owned and operated by Canadian National Railways, is to be under a separate crown company, which will handle all main-line routes.

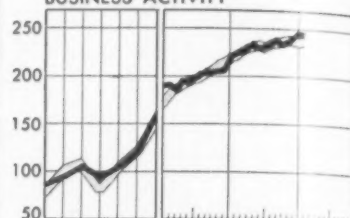
On the losing end of the Dominion's

TREND OF BUSINESS CANADA AND U.S.A.

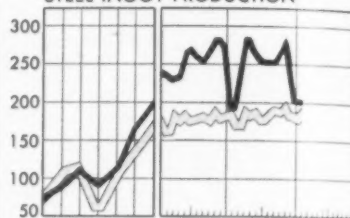
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CANADA — U.S.

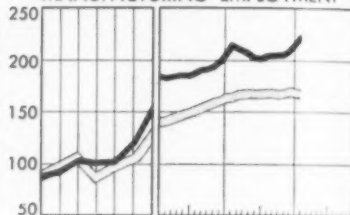
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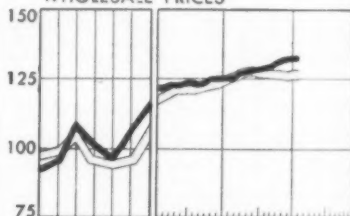
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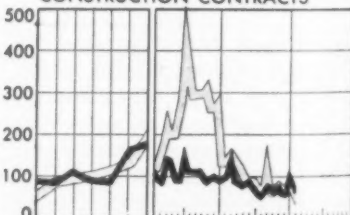
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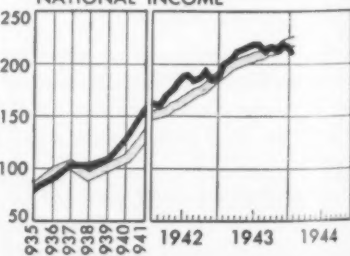
WHOLESALE PRICES



CONSTRUCTION CONTRACTS



NATIONAL INCOME



© BUSINESS WEEK

new air deal is Canadian Pacific Railway, which in 1940-41 bought up all independent air services then in operation. C.P.R. has been notified that it must get rid of its airlines. No new licenses will be issued to bus lines and other surface carriers. New firms headed by air force men will receive preference in the granting of licenses for feeder routes.

New Board Projected—Control of all air transport in Canada under the new plan will be under a proposed Air Transport Board. In addition to issuing licenses and allocating new routes, the board will establish tariffs for air traffic, survey Dominion air needs, and aid former air force men to finance new carrier services.

Missing from the plan is provision for war-end aid to Canada's lusty young aircraft industry. Munitions Minister C. D. Howe was urged recently by a committee of government department heads and representatives of the industry to guarantee enough government orders to carry on a minimum of operations after the war (BW—Mar. 18'44, p. 16).

Will Build Transport—In connection with postwar air transport plans, however, Howe has announced government acquisition of rights to manufacture a jet-engine transport. It is believed that the planes will be produced by government-owned Victory Aircraft, Ltd., at its plant near Toronto.

Canada's draft for an international air transport convention is basically a bid for freedom of the air. It proposes that transport aircraft of one country be free to fly over the territory of another without bilateral agreement, but that the number of aircraft engaged in international traffic and routes flown be regulated and limited by a world authority. **International Assembly**—Universal set-up proposed by Ottawa would consist of an assembly representing all member states and a board of directors. This authority would be required to plan international air services, first with a view to promoting security, second to meet world transport needs, third to insure fair allocation of routes.

Each state would have from one to five votes according to its importance in international air transport. Eight member states of main importance would dominate the international board.

Sponsorship Needed—Under the plan, any company wanting to operate internationally would have to obtain the sponsorship of its government. Its application would be passed on by a regional council which would have authority to give it freedom of transit over the airspace of all member states of the region. It proposed to operate in more than one region, its application would be dealt with by the general board.

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THE MARKETS

(FINANCE SECTION—PAGE 83)

For almost two weeks now the daily volume of trading on the New York Stock Exchange has been running consistently well ahead of the 1,000,000-share mark, and member firms have enjoyed their largest commission income since last fall's sharp selloff.

• **Much Profit Taking**—However, earlier investor enthusiasm for the traditional bellwether stocks in the industrial group, which provided the initial impetus to the current stock market rally, has almost disappeared recently under the influence of much selling for profit-taking purposes.

The utility stocks, also, have been finding it difficult to make further advances. Consequently, except for a sharp, one-day rally put on by the rails early this week, the picture presented by the stock market lately, stripped of all the ballyhoo, has actually been one of a vast churning movement, with no price progress in evidence commensurate with the trading volume.

• **How Near the Top?**—This state of affairs hasn't gone altogether unnoticed. Indeed, it has been creating some doubt in the minds of some hitherto bullish market students.

This is because they are well aware that large turnovers, when accompanied by only a little progress pricewise, often have marked the top of a rally. Such indecisive action generally indicates the presence of a great deal of stock for sale at current levels, which must be bought without long delay if a reversal of the price trend is to be avoided.

• **Bulls Diminish**—Groups holding such views are pleased by the fact that volume indexes, thus far, have remained favor-

able, in that turnover has been showing a tendency to expand on advances, and to contract whenever prices begin to disclose any signs of weakness.

Nevertheless, the Street currently doesn't hear quite as many bullish inclined statements as it did a week ago. It is now difficult to find even a rampant bull willing to predict with complete confidence that the present rally will take the lagging industrial price index up through its July, 1943, peak.

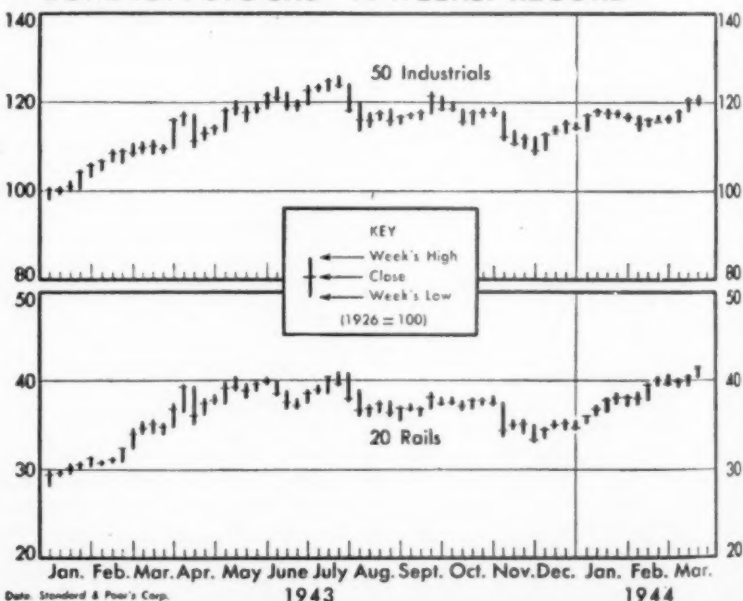
A number of competent observers do think, however, that recent markets have indicated that investors have been proceeding with the accumulation of stocks in line with well-planned investment programs, in which the short-term considerations are secondary to postwar prospects. They now believe that those interested in the primary trend of stock prices, rather than in the direction of the next five-point move, might be smart now to set their sights on postwar earnings possibilities, make their purchases, and not worry too much about any subsequent price dislocations because of temporary war events.

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial ...	120.5	120.4	115.5	109.7
Railroad	41.5	40.5	40.0	34.8
Utility	52.2	51.9	50.3	42.4
Bonds				
Industrial ...	120.0	119.5	119.1	116.9
Railroad	105.6	105.4	106.0	95.5
Utility	115.8	115.8	115.8	112.1

Data: Standard & Poor's Corp.

COMMON STOCKS—A WEEKLY RECORD



Data: Standard & Poor's Corp.

THE TRADING POST

Conviction and Leadership

During the last few weeks, Hanson W. Baldwin, who writes on military matters for the New York Times, has been discussing some of the human factors involved in the military operations. His arguments are based on letters from serving men and on reports from observers who are in close contact with them.

A couple of weeks ago Mr. Baldwin stated the opinion of a corporal with about a year's service that one of the army's greatest weaknesses is "a general want of conviction." He quoted another observer's judgment, after talking with our soldiers in most of the world's theaters of war, that "our men are very muddled on the whole—muddled as to whom they are fighting against and even less clear on what they are fighting for."

In a more recent piece, Mr. Baldwin says his respects to the officer leadership in which the morale of any army is so largely based. He cites some of the obstacles to effective relationship between officers and enlisted men that usually are found in armies that have been expanded as rapidly as ours has been. He makes the point that better leadership might eliminate the general want of conviction on which he had commented.

Both these discussions, one in the Times for Mar. 2, and the other in the one of Mar. 20, are worth a thoughtful reading not alone for their bearing on our military effort, but also for the insight they shed on some phases of every American life.

For unhappily this "lack of conviction" is not confined to war aims. If our men are very muddled on the whole as to what they are fighting for, may this not be an extension of the fact that the American people are "very muddled on the whole" as to what they are doing and working for? If there is a "lack of conviction" on the part of the soldiers as to the gravity of the war and the justification of their efforts, may not this reflect some lack of conviction on the part of our people as to the seriousness of the day's work and the worthwhileness of their efforts to excel at it?

If, as Mr. Baldwin's corporal tells us, the men get bored . . . and come to label everything as 'propaganda' which, to them, is all their unwilling minds need to justify them in throwing it off," may it not be due in large part to our practice for years of dismissing as "propaganda" every effort to stimulate more interest and pride in the day's work?

To put it very bluntly, I sometimes wonder whether the net effect of all the

"uplift" we have enjoyed for a generation or two has not been to exalt the "wise guy" who shrugs off all conviction and enthusiasm as being the naive self-delusion of the despised "suckers." I suppose it is good to build up a spirit of independence and self-confidence in the people of the nation. Those surely are great national assets. But when independence becomes cynicism and self-confidence becomes complacency, they are of doubtful value.

For a long time now we have indoctrinated too many young people with the notion that it is smart to sneer off any appeal that reaches very far above their immediate self-interest and pleasure, and that only the gullible fall for appeals to loyalty, principle, or any cause that involves self-effacement.

Much the same considerations apply to Mr. Baldwin's second point about leadership. It probably is true, as he suggests, that some defective morale should be charged directly to leaders who do not know their business. But it is in order to wonder just how much poor leadership is the result rather than the cause of a general disrespect for leadership which too many Americans look upon as a virtue. The perverted idea that "one man is as good as another and a damn sight better" has bred too much disrespect for leadership as a principle. It is quite true, as Mr. Baldwin points out, that too many junior officers are prone to "exercise the prerogatives of rank without recognizing its responsibilities," and that this in itself kills the respect they should have from their subordinates. But it is true also that many young officers, however capable and well-intentioned, start with two strikes on them because of an innate tendency not to respect them just because they have been selected to be officers. Once again, this may stem in part from the fact that we have been taught to suspect success in others and to resent the successful.

If we would have soldiers who fight with conviction, we must have a nation of youth trained to live and work with conviction. If we would have leadership that men will follow to hell if need be, we must develop and cherish the principle of leadership in civilian life. It may be that our failure on these counts is today the military handicap that Mr. Baldwin points out. But we still can hope that from the war may come home to us a generation with a new conviction that some things in life do transcend self-indulgence and that leadership is a two-way relationship that asks something of both leaders and those they lead. W.C.



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THE TREND

"MEASURING" PRODUCTION—WAR AND POSTWAR

For all their deprecating of statistics, business men by and large are serious and avid users of economic measurements. And, indomitable spirits, they often face up to revisions in figures that have become imbedded deep in business thought, and adjust to new results yielded by science's progress in concepts and tools.

Yet do business men often stop to ponder what is measured and just how? Now there's special reason to.

• For example, we phrase postwar goals in terms of so much gross national product. That's a most useful notion, for it shows in dollars and cents the market value each year of what we produce for consumers, the government, or business itself. And it reveals, on the other side of the ledger, how we have paid for this production—so much wages, profit, taxes.

It's natural to try to use gross product figures to appraise how well we are doing in the war, in peace, and in the transition. But, in going back from war to peace, we must not be shocked by the drop in the figures, for they are apt to exaggerate what actually happens.

Thus, we usually identify the gross national product as the value of all goods and services produced. Actually, it measures only what is produced for the market—when a restaurant prepares a meal, or a bus provides transportation, or a store delivers merchandise. We don't—can't—measure the service produced by a housewife in serving dinner, by a worker in driving to his job, by a child in running an errand. But, during the war, people are forced to stop doing things for themselves and, instead, to buy the equivalent on the market. The woman riveter eats out—and so does the waitress hired to serve her. That's an increase in the gross national product; it may be no increase at all in real service.

• Take another problem. How many of the dollars we now spend on consumer goods represent an increase in price, and how many an increase in market (if not total) production? What is price—for example, when WPB rules provide for shorter shirt tails? The shirt has less cloth, but it's just as serviceable. Should the price of the shorter shirt be lower? In peacetime, the market's free play would probably say yes; now, consumers will pay any price OPA sets.

Or again, in peace we pay more for quality. Normally, volume of quality goods is low and costs high. Now in war, with goods scarce, prices fixed, and income high, people "trade up"; everyone buys "quality." Prices do not go up; yet, with more volume, relative costs have dropped.

"Invisible" rises go beyond individual prices. To get an over-all price measure, we price shirts, steaks, kilowatt hours, and other goods each month. Each price changes by a different percentage. To combine the changes, we

weight them by the proportion of a total budget which consumers spend on each commodity. Different weights will yield different over-all price increases. In peacetime, the proportions which consumers spend on one thing or another don't change very much; in wartime, they do partly because some goods are scarcer. We spend larger proportions now on restaurants, liquor, jewelry, furs; if we use wartime weights, we would show sharper over-all increases than do the price indexes usually used. Because the gross product has been inflated more in war than most price indexes show, it will be deflated more in the transition, too.

• The way in which the change from a free to a controlled market upsets price, production, and value figures is most important in the case of war goods. Auto factories are converted to tanks. Is a dollar of tanks really worth a dollar of autos? We spend more time working a ton of steel into a tank part than into an auto. Are we less efficient in making tanks—don't "know how"? If so, there was a price increase. But suppose a tank takes more work simply because it is more complicated. Would the market pay for so much complicated work in peacetime goods? It never did, and presumably, the market judges "real" value as against cost in deciding how much to buy.

The same point can be made another way. We pay shipyard workers more than waitresses. In peacetime, wage rates reflect different skills in the labor market. Do they now? Is the ex-waitress really a skilled machinist? If not, that's a price increase. But suppose she is. There are millions like her. Would the market pay the price for so much "skilled" work? Doesn't the market pay a differential in peacetime just because there are so few really skilled workers?

• Because of these difficulties, we can't really measure "production" in wartime, and so come up with peacetime goals. Instead, the statisticians estimate what resources we can put forth—for example, man-hours. From peacetime records of production per man-hour, they judge how much peacetime goods these resources—man-hours—can produce. Then they price that production in terms of average wages typical of peacetime production, corrected for wartime increases. That becomes the postwar "goal."

That goal is lower, in dollar terms, than the wartime peak; it must be, because wartime incomes have been inflated, in the ways described. Logically, this can answer the complaints that will arise when the inevitable income deflation begins. But that will be more than a problem in logic or statistics.

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